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"Eggs," Wednesday, January 6th, 1926.

EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH)

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Edited by TOM NEWMAN.
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* * *

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REMOTE STORAGE

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association
WEDNESDAY, JANUARY 6th, 1926.

Editorial.

THE INTENSIVE SYSTEM.

If we return once again to this subject, it is because we believe in the possibilities of keeping poultry intensively, not only laying stock, but breeders, and we also believe that there is more than a possibility that chicks can be reared on the intensive system to a healthy vigorous maturity with a lower percentage mortality than on any other system at present used. We are speaking, of course, on the rearing of chicks in large numbers, and are not concerned with broody hens.

However much some of our readers may disagree with these ideas, and emphasise the failures of 12 or 14 years ago, we maintain that the system was too hastily condemned, and the causes of these failures never thoroughly investigated, and we would ask them: **Has the semi-intensive system been such an unqualified success that they can afford to ignore the possibilities of another system, or can allow prejudice to overcome reason?**

A knowledge of the causes of failure is a long step on the road to success. Some have succeeded with this system. The President of the S.P.B.A. is an outstanding example, Mrs. Hunter not only keeps her breeding and laying stock intensively, but she also rears her chicks on the same system, and she has practised this for fourteen years, so that those who have opposed the system are hardly in a position to say "Wait and see" as far as she is concerned.

It is curious that there has never been any sound argument against the system. There were those who predicted failure, and they are justly entitled to say, "I told you so," and to give them their due they have done so, but they have refrained from any attempt at explanation, and have only repeated the same old remark, "It's so unnatural," varied occasionally by some originals, "It's too artificial." As if there is anything in present-day poultry-keeping that isn't artificial or unnatural, and it is hardly consistent for the man who is hatching his chicks in a mammoth incubator, and rearing them in hundreds under anthracite stoves, to speak of another system, as unnatural or artificial.

Briefly, we may be allowed to suggest that the chief causes of failure were the type of appliances used, more particularly the type of house which was badly ventilated and lighted; secondly, most of those who took up the system had had little or no experience of poultry-keeping; thirdly, we knew little about feeding at that time, more particularly in reference to the importance of the mineral salts. Vitamins were at that time almost unheard of, but what may more particularly affect the future of intensive poultry-keeping is the discovery of the ultra-violet rays.

The S.P.B.A. experiment at Wellingham was satisfactory in every respect, the mortality was less than 4 per cent., including the loss of two chicks from accident. The pullets developed to a healthy and vigorous maturity, and have been very productive. They are better developed than the pullets one sees on the average commercial egg farm at this season of the year.

The one throw-back experienced was during the heat wave in June, which almost caused the failure of the experiment, although the birds were protected from the direct rays of the sun. It affected them to such an extent that they contracted severe colds in August, but these were quickly checked, and since that time the health of the birds has been all that could be desired.

With this we have to reckon these extremes of temperature; the intensively-kept bird must be protected from them. There should be no difficulty in this, but it is a lesson we have learnt, and a valuable one.

One of the things most feared was leg weakness. The addition of 2 per cent. cod liver oil to the mash, however, speedily checked the slight outbreak that occurred. Whether this was due to the vitamin A. or whether cod liver oil is one of the foods which assists in the better assimilation of the calcium salts it is not yet possible to say.

The feeding has already been described in these columns. As far as the development and the production of the chicks is concerned, it is in every way satisfactory. Unless there is an abundant supply of green food, it would appear necessary to feed a salt mixture, and there is some reason to believe that iron will have to be supplied in some form.

Losses from Coccidiosis during the past few seasons have shown an alarming increase, and on one or two farms have been almost ruinous. Intensive rearing seems to afford the easiest solution to this trouble. It is not suggested that immunity may be obtained by rearing intensively, but it is certain there would be a far larger measure of control. It is impossible to rear chicks on contaminated ground, but it could be dealt with far

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more successfully with intensively reared chicks, for, if an outbreak occurred, it would be possible to clear out all the litter and start with a fresh lot. Then if any sick birds were killed on sight, the risk to the remainder would be considerably lessened.

GAPES are a trouble to which intensively reared chicks are immune. Losses from this cause were very severe on a large number of farms last season, and it is impossible to treat the trouble effectively on infected soil.

Capt. Leeney once stated that 60 per cent. of the chicks he examined died from pneumonia. It is not to be supposed that this was in all cases due to exposure, but in by far the greater proportion of cases it is due to that cause, and this would be avoided if chicks are reared on the intensive system.

In advocating closer study of the advantages of the intensive system, it is not suggested that at the moment all difficulties are solved. The chief one is undoubtedly connected with housing. We believe the house erected on the S.P.B.A. Experimental Farm will go a long way to solve the problem, but, undoubtedly, experience will teach us that certain modifications will be necessary. The house is 70 ft. long, and divided into ten sections, each 10 x 10. Later in the year we hope to publish a photo, and fuller particulars.

THE LANCASHIRE UTILITY POULTRY SOCIETY.

INTERNATIONAL EGG-LAYING TEST, 1925-26.

First Report (commencing 19th October to 15th November, 1925).

The first report of the above test shows that the majority of pens have settled down to work, and all are doing well; a few have not yet contributed to the egg basket.

A number of the birds have gone into the neck moult. Notwithstanding this, the Management Committee consider they are an excellent lot of birds, both for type and quality, and have been well chosen for their work, and a very pleasing feature is the improvement in the size of egg. Especially is this noticeable in the W. Wyandotte. If this continues we shall not have to complain about the small egg in the Wyandotte.

Figures are Eggs and Points to date respectively.

Large Breeders. Section 1.—F. Snowden, Cowling, 177, 160; Miss A. Paul, Blairgowrie, 148, 145; I, B. Gow, Cobham, 127, 131.

Large Breeders. Section 2.—R. Rodwell, Nelson, 158, 149; F. Snowden, Cowling, 101, 94. G. Mart, Euxton, 94, 85.

Large Breeders. Section 3.—C. Bates, Samlesbury, 177, 168; E. Yates. Penwortham, 176, 165; R. Marshall, Forton, 159, 148.

Large Breeders. Section 4.—R. Rodwell, Nelson, 178, 156; F. Harvey, Bretherton, 154, 145; G. E. Marsden, Lostock Hall, 158, 138.

Large Breeders. Section 5.—Mrs. M. B Clay, Long Preston, 102, 86; F. B Evers-Swindell, Ruthin, 92, 84; J. McKechnie, Tarleton, 87, 78.

Small Breeders. Section 6.—R. W. Hully, Clifton, Manchester, 66, 67; W. Ashcroft, Tarleton, 64, 62; J. and D. Johnstone, Fife, 35, 34.

Small Breeders. Section 7.—S. and T. Greenall, Grantham, 103, 111; Dr. J. E. Helm, Rossendale, 106, 99; Mrs. M. B. Clay, Long Preston, 105, 93.

Small Breeders. Section 8.—Col. S. Sandbach, Abergele, 73, 77; —. Rawcliffe, Barton, 83, 75; J. McKechnie, Tarleton, 71, 72.

Single Bird. Section 9. Light.—W. Smith, junr., Clayton-le-Dale, 21, 23; W. Golden, Rugby, 22, 22; I. B. Gow, Cobham, 20, 21.

Single Bird. Section 10. Heavy.—P. G. Espinasse, Oxon, 24, 25; R N. Cock, Tarleton, 21, 23; Black Lake P.F., Egham, 21, 20

Juvenile Breeders. Section 11. Light.—Miss W. Banks, Freckleton, 74, 68; Miss M. A. Walker, Hothersall, 33, 35; H. Sutton, Little Hoole, 39, 34.

Juvenile Breeders. Section 12. Heavy.—Miss E. Barron, Catforth, 83, 83; Miss E. Barron, Catforth, 88, 81; R. Gabbott, Little Hoole, 88, 80.

Eggs plus Meat.

By **FRANCIS J. HEMELRYK.**

The altogether admirable article in the Register under this heading from the eloquent pen of Mr. John Meekings seems to me such an important matter to all readers of "Eggs," that I should like to add a few comments, and at the same time put a few questions which should produce a discussion well worth studying.

In the first place, Mr. Meekings is all for the Dual-Purpose Fowl as against the LIGHT BREED EGG MACHINE.

I think he is right, and the breed which is most popular to-day, the White Leghorn, has got to go. I can see most of my friends who keep this wonderfully industrious fowl rising up in their wrath and slaying me with a sledge hammer, but a few facts may not be out of place.

Let us compare the Harper-Adams' Test figures :

	Average Production per Hen.	
	1913-14.	1924-25.
White Leghorns ...	201.43	187.4

Eleven years careful selection by our specialist breeders has produced, not an increase, but a reduction.

Let us look again at the percentage of second-grade eggs laid by this breed of fowls in the same tests :

	Percentage of 2nd Grade Eggs.	
	1913-14.	1924-25.
White Leghorns ...	8.72	11.83

Eleven years careful selection by our specialist breeders has produced an increase, not a reduction.

What, I ask, will the figures be in 1936-37?

The figures of eggs laid, of course, are wonderful, but members of the Scientific Poultry Breeders' Association have to look forward and not look back on what has been.

Mr. Meekings put the profit per bird on eggs alone at 3/- per bird, and I daresay he is right; at any rate it is up to him to defend his own figures, but, assuming he is right, the question of the disposal of the young cockerels must assume a far more important economic aspect.

The egg farmer cannot afford to work at 3/- per head profit, dispose of half his stock every year, and sell his cockerels at 6d. to 9d. a piece as he has to do with the White Leghorn. He may, and doubtless has, been able to do so in the past, but obviously he cannot afford to do so in the future, and consequently the White Leghorn as a breed is doomed, and may as well be turned over to the Fancy at once and let them do their worst.

The same criticisms that I have levelled against the White Leghorn apply with equal force to Anconas or Black Leghorns, and merely go to bear out Mr. Meekings' statement that the egg farmer of the future MUST ADOPT a dual-purpose fowl and leave these wonderful sprinters alone.

The next question we must ask ourselves, are we going to breed first crosses to fill our egg basket? and here I fear I am venturing on an even more controversial problem.

We have had a much advertised laying test carried out, or under the auspices of a well-known daily organ.

Superficially the figures show up extraordinarily well, but from a commercial egg farmer's standpoint there are many difficulties, as it entails his keeping breeding pens of pure-bred stock as well as breeding pens for his fancied crosses. The question arises, is this extra expense, given of course the premises that you renew half your stock yearly, going to prove economical in practice?

On this point opinions will be divded, and there is a great deal to be said on both sides.

It might, of course, be cheaper to buy your first cross pullets at six weeks of age, and thus do away with all the troubles of incubating and rearing, but someone has to be paid for the trouble of finding, hatching and rearing these birds.

Probably the majority of egg farmers will vote for the pure-bred fowl, and it then becomes a question of what breed to adopt. On that point we naturally all have our own views, and I am not going to step into the arena with my suggestions, for reasons which are obvious.

The point which worried me until a few years ago, which strikes me as of great importance, is: "Why should we renew our pen by 50 per cent. every year and not keep our birds for a third or fourth season?" It should reduce our rearing expenses very considerably, and should, as a consequence, be reflected in our balance sheets by an increased nett profit.

Broodiness in fowls is usually considered a nuisance, but has it yet been proved that a certain amount of broodiness during the warm months (when eggs are cheap) is not a blessing in disguise, as Biddy is booked by a Divine Providence to give us a certain number of eggs in the twelvemonth, and it is far better she should furnish those eggs at a time when they realise 2/6 to 3/6 per dozen rather than when eggs realise the magnificent figure of 1/3 per dozen?

It would be very interesting in laying tests if the value of the eggs laid, in shillings and pence, were displayed so that we could judge whether our birds were pulling their weight.

To me THE WINTER EGG is the supreme factor in a fowl. Every hen, even the sorriest specimen, will give us a good number of eggs in March to, say, June, but we want eggs from August to Christmas, and that, to my mind, is the acid test by which to judge a fowl, provided always that the cockerels represent a profit instead of a loss in our budget.

To depart from my subject for a moment, we have been told that the best layers moult late. (Many of my own birds are still undergoing that painful process.) It strikes me that it might be a useful point if birds all moulted in July and got over it during August, when egg prices begin to get a bit more tempting. It would be interesting to have an authoritative opinion from our distinguished Editor as to when he considers the best time for the moult, and whether he would recommend any action on our part to induce our flocks to follow his sage counsel.

In conclusion, may I tender my congratulations to the compiler of our Annual Register. As the years pass the absorbing interest of this publication grows ever and ever greater.

"DAILY MAIL" EGG-LAYING TEST, 1925-26.

Report for First Month—19th October to 15th November, 1925.

This test differs in many respects from those previously promoted by the "Daily Mail," and covers a wide field in that it includes sections for (1) pure-bred second season hens, (2) second season first cross hens, which competed in last year's pullet test, and (3) first cross pullets.

The test should therefore provide some interesting and valuable data, especially regarding the laying capabilities of first crosses in their second year of laying, a point on which no information is at present available.

On the arrival of the birds it was noted that comparatively few of the second year pure bred hens had even commenced their annual moult and the first cross hens held over from the previous test were in the same condition, consequently their average production for the first month has been low, and as it will' be some time before they can recover from the moult, no great increase is to be expected in the immediate future. Neither was the production of the pullets very good, as many of them were immature on arrival, but towards the close of the month there was a rapid rise in the daily collections.

The total number of eggs laid was 2,742, and the average per bird—of the hens was 2.74 eggs, and of the pullets it was 5.61.

The hens entered were all of good laying type, and with a very few exceptions conformed to the standard of the breed they represented. Some of the first crosses were very good specimens, and were much admired on arrival, especially the pen of Australorp x Rhode Island Red entered by the Prince of Wales, from the Duchy Farm, Landulph Halt, Cornwall.

This pen heads the first cross pullet section for the month with a good record of 114 eggs, only three of which were second grade.

This was followed by a score of 97 eggs standing to the credit of Mr. J. M. Smith's White Leghorn x Rhode Island Red pen. The highest scoring pen in the pure bred hen section was Mr. G .K Spiers Alexander's White Wyandottes with 75 eggs, and in the first cross hen section Mr. T. E. White's Buff Rock x White Wyandotte put up a record of 87 eggs.

The general health of the flock was very good throughout the month.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs and Points to date respectively.

Section 1. Leghorns. Any Variety. Seven Hens.—R. A. and A M. Johnson, 67, 64; Balsham Manor Farm, 68, 61; Burrow Lea P. Farm, 57, 57; Mrs. R. Borough-Hopkins, 51, 61.

Section 2. Wyandottes. Any Variety. Seven Hens.—A. K. Spiers Alexander, 75, 75; Frank Snowden, 64, 64; M. F. Phelan, 52, 51, F. W. Barley, 39, 39; A. Hughes, 39, 39.

Section 3. Rhode Island Red or Light Sussex. Seven Hens.—Major G. T. Williams, 64, 64; Edward Beer, 53, 51; W. Marsden, 48, 47; Tilley and Webb, 43, 39.

Section 4. Any Other Breed. Seven Hens.—Oscar C. Brown, 42, 34; Mrs. Ward-Jackson, 35, 27; W. Hamnett, 25, 25; W. C. Crossland, 11, 11.

Section 5. First Cross Hens competing in "Daily Mail" Test, 1924-25. Seven Hens.—P. E. White, 87, 79; H. Sutton and Sons, 44, 43; Sydney Smith, 31, 31, W. Crabtree, 20, 20.

Section 6. Any First Cross. Seven Pullets.—H.R.H. The Prince of Wales, 114, 111; Mrs. Ida M. Smith, 97, 70; Tom Barron, 87, 64; A. Mansell, 73, 55; Mrs. and Miss Tyler, 57, 44.

GLAMORGAN AGRICULTURAL COMMITTEE.

COUNTY EGG-LAYING TRIALS, 1925-26.

Report for Second Period.

Figures are Total Points to Date.

Heavy Breeds.—A. L. Davies, Morriston (R.I.R.), 835; R. J. Evans, Abertridwr (R.I.R.), 689; A. J. Jenkins, Barry (W.W.), 637; J. Joshua, Tondu (R.I.R.), 575.

Light Breeds.—Howell and Phillip, Barry (W.L.), 970; A. J. Thomas, Pontardawe (B.L.), 707; A. J. Jenkins, Barry (W.L.), 671; D. Hopkins, Port Talbot (W.L.), 442.

Single Birds. Heavy Breeds.—G. Haylings, Ynysybwl (W.W.), 162; T. E. Lewis, Pontardawo (L.S.), 149; Mrs. K. M. John, Ynysybwl (R.I.R.), 146; G. A. Monk, Ynysybwl (W.W.), 131.

Wet mash birds laid 212 eggs during the period. Dry mash birds laid 285 eggs during the period.

Modern Poultry Feeding.

By TOM NEWMAN.

A CURIOUS CAUSE.

Several letters are received daily from members seeking an explanation of the failure of their birds to produce the expected quota of eggs, and often others write to say that the birds have made a good start, but for some unaccountable reason there has been a big drop in the egg yield. Generally it is not difficult to find a cause if one can get sufficient details. However, sometimes an explanation is not easy, and the following would have puzzled many an expert :—

A member wrote to say that the production of eggs compared very unfavourably with the corresponding period of last year ; the birds appeared slightly out of condition, although the feeding had not been varied, and examination of the foodstuffs revealed nothing which would explain the cause. The consumption of mash was comparatively small, and then it was discovered that the birds were eating a very considerable amount of malt dust which had been used on the dropping boards. When this was removed they quickly recovered condition, and the egg production became normal.

Many proprietary foods contain malt dust or malt culms, and if not used in excessive quantities are very useful [illegible] the birds eat them fairly readily if fresh, but they soon deteriorate if stored for any length of time ; but they contain a highly poisonous substance, known as Hordenin, and this probably caused digestive trouble with the consequence that the birds became out of condition and ceased to lay. No one would wish to altogether condemn malt dust as a poultry food, although very frequently there is a good deal of sweepings in it which is of no value, and for this reason the culms are much to be preferred to the dust.

THE NECK MOULT.

I wonder whether we shall ever find any solution of the problem of the neck moult? I have always contended that it is in the main due to the fact that the birds are producing and developing at the same time, and the result is that there is not sufficient nourishment for both purposes, consequently they get slightly out of condition and moult. This would appear to be confirmed by the fact that such experiments have been made in this direction that by giving an additional quantity of food it has to some extent checked this moult, and many members have written me to say that since following the suggestion I have made a large number of their early-hatched pullets have not moulted.

The following is an extract from a letter received from Mr. Swepstone, who writes :—

> "At this time of the year one hears often complaints that early-hatched light breed pullets are slow in getting through the pullet moult with the consequent loss of profit to their owners. In case the information may be of use to members, perhaps you will be interested to know that this year I started lighting my laying sheds, where the February pullets are housed, on the 6th October. At that time moulting had not set in, though one or two birds had started to drop a few feathers. The lighting, which was only up to 8 p.m., seemed to put a stop to further feather dropping, and instead of the egg yield gradually going off it picked up almost immediately.
>
> This batch of pullets came into lay about the end of July, although, of course, I had been picking up a few eggs before then. During August the flock average was 51 per cent., in September 49 per cent., October 35 per cent., November 51 per cent. During the last few days of cold weather the yield is down to 48 per cent., but I attribute this to the weather rather than to the little moulting which is going on.
>
> The flock consists of some 280 White Leghorns housed semi-intensively in one flock."

One cannot attribute this to any other cause than the extra amount of food the birds are consuming.

The question is so often asked : "Is the neck moult hereditary?" and some of those who have studied the subject are inclined to believe it is. What I would suggest is, that it is not so much a matter of heredity as of the individuality of the bird, and the power to assimilate sufficient food for bodily maintenance and development and also for egg production. It is curious how birds will vary in this respect ; some will drop just a few feathers, while others will go into a complete moult.

LANCASHIRE FEDERATION OF UTILITY POULTRY SOCIETIES.

Minutes of the Annual General Meeting, held in the Master Builders' Rooms, Mount Street, Preston, on Saturday, December 12th, 1925. Present:—Mr. J. Wrennall (President), Mr. S. Marson (Chairman), who occupied the chair, Mr. J. P. Willacy (Treasurer), and Mr. W. Hamnett; Messrs. D. Potts, J. J. Hardy, and G. B. Tootall, E. Evans, C. Longbottom, J. P. Skipper, T. H. Walpers, W. Scott, A. Sharples, R. Hargreaves, J. Brewer, J. Hall, T. Edmundson, T. H. Harrison, H. West, J. W. Pearson, D. Braithwaite, J. C. Hodgkinson, W. Kay, D. Walsh, W. L. A. Hall, Rev. A. J. King, Dr. J. E. Helm, Messrs J. Dawson, W. Martindale J. F. Martindale, J. Horrocks, J. Moon, J. T. Pate, G. E. Leigh, H. Winstanley, T. Sutton, A. Grime, and E. Collier, Organising Secretary. Mr. Frank Snowden was present at the invitation of the Federation.

MINUTES.—The minutes of the last Annual General Meeting were read, and on the proposition of Mr. J. Hall, seconded by Mr. T. Edmundson, these were confirmed and signed

CORRESPONDENCE.—A letter was read from the Secretary of the National Poultry Council in reply to a request from the Federation Secretary, respecting the loan of poster blocks, "Eat More English New-Laid Eggs," stating they could be loaned free of charge. The size was found to be rather small for the purpose intended. The Secretary stated an effort was being made to obtain larger sizes.

SECRETARY'S REPORT.—The Secretary gave a report of the past year's work. This again showed a slight increase in number of societies affiliated, four new ones having affiliated during the year making a total of 40 (37 having paid their fees). He stated the National Poultry Council had done good work during the year of National benefit, and the Federation had taken their full share in the work of that body, being well represented on the Executive and Committees.

In dealing with the Sub-Committees of the Federation he mentioned the amount of work done by the Educational and Propaganda Committee, who had again spent a lot of time in revising the "Exhibition Utility Standard," which can now be bought for 3d. by members, and 6d. by non-members. This committee had also dealt with the new arrangement for compiling the Federation "Judges' Panel," which had been accepted and agreed upon by a full meeting of delegates. The Laying Test Committee had again done its work well, the number of birds entered in this year's test being up to the previous one, and he thought the Federation's thanks were due to Mrs. Mercer, who attends the birds under the supervision of Mr. C. H. Dobbin, the County Poultry Instructor, for the efficient manner in which she had carried out her duties. The Finance Committee he stated had contributed a fair sum to the funds of the Federation from a prize draw, and although the balance sheet showed a slight loss it was on account of the large expense in printing and purchasing a shield for the show.

Mr. Martindale moved the report be accepted which was seconded by Mr. W. Grime, and Mr. Marson (Chairman) said the Federation's thanks were due to the Secretary for the great amount of work he had done during the year.

Mr Martindale moved an honorarium of £40 to be given to the Secretary, which was seconded by Mr. T. Sutton, and carried.

Arising out of this report was a few remarks by Dr Helm on the work of the National Poultry Institute. He moved a resolution be sent to the National Poultry Council as follows:—"That the progress as reported to-day of the work of the National Poultry Institute was anything but satisfactory, with a request that a more full and more detailed report of their work ought to be published for the benefit of the Poultry Industry.

This was seconded by Mr. Hamnett, and carried

TREASURER'S REPORT.—Mr. J. P. Willacy (Treasurer) presented the balance sheet, which showed a loss of £43 9s. 9d on the year, leaving a bank balance of £140 0s. 10d. He dealt with the expenditure side first, and pointed out the heavy items for typing and printing. In dealing with the income side, he mentioned the affiliation fees paid by societies which were smaller than last year owing to the members of several societies having decreased.

Dr J. E. Helm moved the adoption of this report, with a vote of thanks to the Treasurer for the way he has carried out his duties. and this was seconded by Mr. J. F. Martindale, and carried.

ELECTION OF OFFICERS FOR 1926.—Mr. S. Marson was unanimously elected President for next year. Chairman: The voting was as follows:—Dr. J. E. Helm, 27; Mr. E. Evans, 8; Mr. J. Whalley, 1. Dr. Helm was then elected Chairman. Secretary: Mr. E. Collier. Treasurer: Mr. J. P. Willacy. Auditor: Mr. J. Whalley, 13 (elected); Mr. W. Martindale, 12; Mr W. A. Hall, 5; Mr. W. Grove, 4.

PLACE OF SHOW FOR 1926.—Affiliated Societies are invited to send in applications (for the next meeting) if they wish the show to be held in their district, on the proposition of Mr. G. B. Tootall, seconded by Mr. T. Sutton.

PLACE OF FEDERATION MEETINGS FOR 1926. — Much discussion arose on which was the best centre for the meetings, Bolton and Preston being eventually decided as the best centres. On being put to the vote, Preston carried—(Preston, 24 votes; Bolton, 11).

CHESHIRE COUNTY COUNCIL.

SINGLE BIRD TEST EGG-LAYING COMPETITION, 1925-26.

Report on Results for Second Month—Nov. 21st to Dec. 9th.

The flock average for the month is 11.15 eggs per bird. The average for the light breeds is 12.1, and for the heavy breeds 10.5 per bird. Six birds in the light breed section, and fourteen in the heavy breed section did not lay.

Moulting was observed on three birds, and two have suffered from colds, and one other bird was also sick.

SUMMARY OF LEADING PENS.

Figures are Eggs for Second Month and Total Points to date respectively.

Light Breeds.—A. Dixon (W.L.), 22, 469; A. D. Tobler (W.L.), 19, 464; Barrowmore P.F. (W.L.), 20, 436; Mrs. N. Viney (W.L.), 20, 431; Mrs. E. Johnson (W.L.), 16, 411; Mrs. E. Johnson (W.L.), 19, 404.

Heavy Breeds.—E. Patterson (Buf. Orp.), 22, 516; Mrs. N. Viney (W.W.), 22, 490; W. Travis (W.W.), 20, 444; J. Hignett (W.W.), 18, 438; Mrs E. Johnson (L.S.), 18, 435; E. Patterson (Buf. Orp.), 16, 428.

Housing.

By **TOM CARTER.**

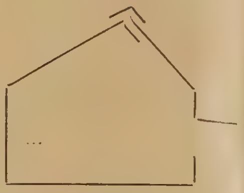
Before dealing with any particular type of house it is essential that we should have a clear idea of what we require from our houses. I think most of us require that they should provide protection by *day* as well as by night from wind, rain, snow, frost, or great heat, and admit not less than a certain minimum of fresh air and *light*. I place emphasis on the word "light" because I am certain that the fact—it is a fact—that the light should as far as possible be unfiltered light is not generally recognised. There is evidence of this in the advertisements of manufacturers, in which no provision is made for the admission of light, except through glass, which, of course, filters out the ultra-violet ray. These houses are only possible when the birds are at liberty to run outside, and so subject themselves to more natural conditions, and the attempt to house birds intensively in such houses has been responsible more than anything else for the comparative failure of the intensive system. One of the worst features of Mr. Somerville's apex house is his failure to make any provision for the admission of unfiltered light. He has fallen into the same error as the medical profession did up to a few years ago. Because an open-air life was found to be of extreme benefit in certain diseases, the doctrine of fresh air became a craze. We slept with open windows to admit fresh air; we went to the seaside for "ozone"; it was the only factor in open-air life that was given any consideration. We still recognise the desirability of the open window, but fresh air is only one factor in the value of the open-air life, and the ultra-violet ray is a factor of not less importance. I dare say many readers are still sceptical of the value of these rays, but, to my mind, the theory cannot be doubted. In a series of experiments which I carried out from 1919 to 1922 in the intensive system, I discovered the value of direct sunlight as compared with light through glass. I was quite ignorant of the reason at the time, but the alterations which I made to my houses as a result of the experiments have given greatly-improved results during the past three years. Incidentally, I have now no difficulty in rearing chicks intensively—a matter of great importance in the early season in Lancashire. I don't say this is the only factor, but it is of great importance, and enables me to get my results without the use of expensive dried milk, or even natural green food. I have remarked upon the fact that birds on the semi-intensive system do not suffer so much from deficiency of these rays, but in winter it is often a choice of the lesser evil, whether to encourage them to run outside and suffer from wet or cold conditions, or to remain inside an unnatural type of house and develop deficiency diseases.

The fact that our housing requirements are of so varied, and often opposing nature, renders our task infinitely more difficult than would be the case if there were not so many things to be considered, and our best efforts must be in the nature of compromise. Probably there is no one type of house the best for all situations. Local conditions are too often overlooked both in the houses we build, and the breeds we keep.

I will take, first of all, the type of house which has been very much boomed of late—the Apex. This type is, of course, cheaper to build than any other. Mr. Somerville claims to be able to do so at one-third the cost of a span-roof house. I challenge him to prove this claim by detailed specifications and quantities to the satisfaction of the Editor or any person or persons appointed by the Editor. If he succeeds in doing so I will pay the expenses of judging, and forward £5 to the National Poultry Council. If he fails perhaps he would pay the expense only. I submit that a span-roof house of the necessary stability can be erected for less than half the three times cost stated. Moreover, on September 16th, an advertiser in this paper offered an Apex house which he stated he was building after being approached by Mr. Somerville to take up their manufacture. This house is 64ft. x 12ft.—i.e., a floor area of 768 square feet, and the price given as £112 10s. 0d. I have before me a list sent by Mr. W. H. Colt, in which a superior type of span-roof house, 60ft. x 15ft., i.e., a floor area of 900 square feet, is priced £115. Another advertiser offers a span roof house, 50ft. x 10ft., i.e., 500 square feet floor area at £65. Therefore, in both these instances the span-roof is actually cheaper per [illegible] foot of floor than the Apex. In face of these figures, Mr. Somerville's statement of cost, and the fact that he has referred us to this advertisement for his cheap house requires some explanation. So much for costs.

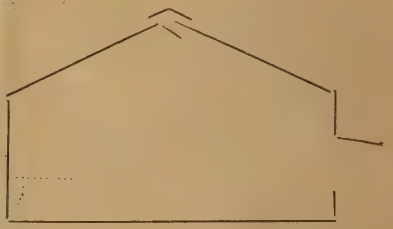
The interior of the Apex house does not lend itself so well to the fitting of nest boxes, mash hoppers, etc., and although I understand a separate chamber is provided for nests, I feel my own birds would require more training than I have patience to give them before they would use it regularly, and I am not enamoured of the job of crawling on my hands and knees under the dropping boards to get the eggs laid in the angle of the house. In any case, if it is desired to get the full advantage of induced ventilation, why perch the birds at the sides of the house? The proper place is in the centre of the house, so that the heated air rises in a direct line to the vent, and the slope of the roof ceases to be a matter of importance. In addition to clearing the air for breathing purposes ventilation is also necessary to keep litter dry in winter, and in damp districts something more than induction is required—that is to say, an auxiliary system which will admit currents of air on a fairly large scale during the hours that the birds are not perching. On the other hand in hot summer weather the temperature of the interior must be raised above that outside before the system operates, and those of us who know our business contrive to keep the interior temperature below instead of above. I am speaking from experience when I say that the system is a miserable failure in summer. Within four weeks of the arrival of really hot weather half the birds would moult. Of course, if Mr. Somerville has succeeded in pitching his tent, in the words of Tennyson: "Where falls not rain, nor any snow, or ever wind blows loudly," he is immune from many of the difficulties I have mentioned.

In suggesting an Apex house of not greater length than about 14 feet, I am actuated by the necessity for providing supplementary light and ventilation, and this can be successfully done from one of the gable ends. This gable becomes the front, and, in my own district, at any rate, should face south. A considerable proportion of this front should consist of a series of shutters 2ft. deep, arranged above each other, which may be raised to a position just below the horizontal, and, whilst keeping out rain, will admit air and unfiltered light. Some glass could be fitted in the other gable facing north, *but not on any account in the sloping sides.* Again I am speaking from experience when I say that a house on these lines makes quite a decent colony house 14ft. x 14ft. by 9ft. to ridge. I have little to say about the open-fronted lean-to type except that it isn't as bad as one might think from some criticisms. It is usually the coolest of all types in summer. To be stable in high winds they must be anchored to the ground, and with the removal of the hood and its replacement by strong hessian on the open space at the top of the front, would be much improved. I intend to try this on one of my own. Below I give an outline of a 9ft. deep and a 14ft. deep span roof:—



Dimensions:

Depth: 9ft.
Height to Eaves: 4ft.
Height to Ridge: 7ft.
Front: 1ft. of boards at the bottom, 2ft. of shutter, 1ft. of glass above.



Dimensions:

Depth: 14ft.
Height to Eaves: 4ft. 6in.
Height to Ridge: 8ft.
Front: 1ft. boards at the bottom, 2ft. shutter, 1ft. 6ins. glass above.

Louvre type ventilators fitted under dropping boards in house of this depth at intervals of about 14ft. along the back. These are of glass to admit light as well.

The shutters can be closed or opened in a few moments. In practice I find that they can be left open day and night from May to September. During this period the glass is covered with strips of thin felt to keep the house cool. They are removed in September, rolled up and stored until the following May.

One final prick at Mr. Somerville's bubble. I can build this type to stand any kind of gale experienced in this country at a cost for material of less than £30 for a 60ft. x 14ft. floor area. By how much can an Apex beat that?

HERTS COUNTY EGG-LAYING TRIALS.

Report for Second Period—12th November to 9th December.

Figures are Eggs and Points respectively.

SECTION 1.—Open to any Breeder in the County.

Division A. Any Light Breed. Six Pullets.—Mr. Hedley Morgan (W.L.), 221, 2214; Mrs. E. Charles (W.L.), 203, 1985; The Hoo P. Farm (W.L.), 134, 1462.

Division B. Any Heavy Breed. Six Pullets.—Dr. Douglass (W.W.), 217, 2347; Mr. J. P. Morgan (W.W.), 168, 1793; Mr. H. Morgan (W.W.), 150, 1643.

SECTION 2. Open to Poultry-Keepers whose total laying stock does not exceed 150 head

Division A. Any Light Breed. Three Pullets.—Dr. Douglass [illegible]) 108, 1122; Mr. J. Burnett (B.L.), 29, 285.

Division B. Any Heavy Breed. Three Pullets.—Mr. W. Lloyd [illegible]. 93, 946; Mrs. Walrond (W.W.), 70, 748.

Correspondence.

FURNITURE OF LAYING HOUSES.

To the Editor of "Eggs."

Dear Mr. Newman,—I am particularly interested in the views of Prof. Thomson concerning the furniture of laying houses, and, having thoroughly tried out various system, I think my experience may be helpful to those who may, like the writer of "The Modern Laying House," "Eggs," December 16th, wonder if there is any possibility of improvement on these lines.

Originally this farm was equipped with the accepted system of dropping boards and perches, but the former did not prevent the birds from fouling the litter during the day, and occupied two hours of a man's time daily scraping this down, so in 1923 we threw them out and lowered the perches to eighteen inches from the floor. This answered very well during the summer months, but in the short, muggy days it became necessary to clear out and relitter fortnightly, and the expense of renewing the six inches of litter became rather heavy, in addition to the amount of labour required to remove such a quantity of stuff. We then reduced the number of bags put into each house (150 birds) from ten to four, and found that the houses kept just as sweet and dry as when the larger quantity was used, and the amount of labour required every fortnight considerably reduced—in fact, exact figures for one unit are as follows: Man's time at 1/- an hour, 2/-; four large bags of chaff at 6d. each, 2/-; so the total cleaning cost of each house per fortnight is 4/- under the worst conditions we have had. In the summer this two inches of litter lasts for two to three months, according to weather, and cleaning costs are reduced accordingly, whereas dropping boards need to be cleaned daily, summer and winter, and litter needs changing every three months or so in addition. Then, obviously, it is much more sanitary, having the birds sleeping eighteen inches above their droppings than the six or eight inches above a smelly droppings board. Also there is nothing to obstruct the current of fresh air which is drawn from the windows to a point somewhere below the birds when they are sleeping. I have found, by the way, that in a span-roofed house, 15 ft. broad, 6 ft. to eaves, and 10 ft. to ridge, a satisfactory induced current exists if inlets are provided a foot above the floor **at the front of the building only,** and a liberal outlet at the ridge, but only when the birds are on the perches—which is, after all, just when we want it; practically the whole of the fronts are thrown open during the daytime in almost any weather, allowing the whole building to be flooded with whatever sunlight there is. Working on these lines I never have a case of sickness whatever, excluding a few cases with ovarian trouble of sorts during the flush months.

Pullet production from November (early) is round about 60 per cent to 70 per cent. right through the winter months, and second year birds' production from middle of November 30 per cent. to 35 per cent., increasing as the spring comes along, of course.

Apologising for taking up so much of your space.

I remain, yours very truly,

JOHN N. BURGOYNE.

STAMPING OF NEW-LAID EGGS.

To the Editor of "Eggs."

Dear Sir,—I am very anxious to obtain the opinion of some of your readers with regard to the stamping (with the name and address of one's farm) of new-laid eggs. I recently despatched a consignment of eggs to a salesman in London, and afterwards received a letter from him saying, "We are writing to tell you that we would prefer it if you do not stamp your eggs. They are very good eggs, but our customers tell us that an egg that is stamped, although it is stamped with an English stamp, does not sell so well as one that is not stamped. We feel sure you will appreciate that our only desire is to enable you to market your produce in the manner most likely to realise top price."

Now I was under the impression that eggs were stamped to ensure the purchaser being able to obtain Home Produce, but it seems that one has to run the risk of having Home Produce mixed with Foreign in order to obtain top market price.

Yours faithfully,

B. W. OLDHAM.

HOUSING.

To the Editor of "Eggs."

Dear Sir,—I very much appreciate Mr. Somerville's kindness in replying to my criticism of his original article.

May I hasten to assure Mr. Somerville that carbon monoxide was mentioned by me without practical verification, but I am discussing the possibilities of its presence with scientific friends of mine, and will intimate the results as soon as possible.

With regard to foul gases, heavier than air, generated in the poultry house when the birds are asleep and everything is still inside, I consider it possible that with the decrease in temperature during the night these would drop to floor level, and should, if possible, be allowed to escape. This, however, is not always possible, but I do consider that the chemical decomposition occurring in the droppings should be taken into account.

The house I have erected is apparently without draught, and so far pure theory has assimilated itself to practice.

Should you consider a dimensioned sketch of my design would be of any assistance, I should be happy to enlarge on the subject.

I maintain that the general allowance of approximately four square feet per bird is erroneous, and what we should aim at is the volume of air consumed per bird per period of time, and make the cubical contents of our houses accordingly.

I find that the average house is over-built, inasmuch as it is much stronger structurally than required, and I see no reason why economical lean-to houses could not be made up to a 16 foot span.

I hope that this correspondence will continue, as I find it most instructive.

Yours faithfully,

E. ISMAY.

PROFESSOR THOMSON DOES NOT TELL US HOW.

To the Editor of "Eggs."

To read the views of Professor Thomson upon the methods of poultry-keeping in this country in comparison with that of Australia leads one to marvel how incompetent as poultry farmers we must be. Such incompetency needs rapid awakening. In England we join in chorus with the phrase "overriding nature," and hesitate in new methods. A little more descriptive comparison of the two methods will perhaps prove enlightening.

The first point open to question is as follows :—The Professor asserts we skimp our feathered stock! If poultry feeding in this country were analysed as to the wet or dry mash methods of feeding, we perhaps should find that whereas the wet method had held full sway, the dry method was fast approaching its era. Even now it might be very safely divided into equal parts of wet and dry feeding. The dry mash method of feeding necessitates, to give full satisfaction, a constant supply of food to be always before the birds to enable the shy and timid, the heavy producer, and the light, the larger framed bird, and the small to satisfy their own individual wants. Is this consistent with skimping?

The second point in question : Intensivity and Economy of concentrated foods.

Intensivity has been practised in this country for the last thirteen years. To quote a few incidents. Two double-decker establishments with a capability of housing 1,000 hens each near Wimborne, in Dorset. Another double-decker in the same county holds 3,000 laying head. In Hertfordshire we have the same principle applied to small flocks, with the special injunction to feed green food freely, comprising lawn clippings, cabbage, lettuce, clover, hay, turnips, swedes, margotos, and sprouted oats. Briefly, to feed bulky with the addition of extra animal protein. Is the Professor's claim substantiated? Only one grain is fed at a time of the bulkier sorts in Australia, although there is a good surplus in the litter. One of the finest means of introducing vermin ever advocated, and there is an ample surplus of rats in England without further encouragement.

The third point in question : Housing.

The Professor's idea of housing is an intensive house with dimensions 30 ft. x 15 ft. x 7 ft. 6 in. by a 2 ft. fall, as an accommodation of 200 fowls, or 2½ sq. ft. per bird, which needs no cleansing for five years. It is a fact that I personally have removed well over ½ cwt. of excreta as a week's complement from a span-roof house from droppings board housing some 50 layers, with a 4 sq. ft. area per bird. One hesitates to think the result of multiplying the equality of these figures to the Professor's assertion, 2 cwts. x 52 weeks x 5 years equals 26 tons on a floor area of 450 sq. ft., or 1.15 cwts. per sq. ft. of area. This is entirely free from the extras of daytime droppings. The nest boxes covered with droppings are admittedly awful to look at. They are, indeed, a menace to good health.

But are they a saving from loss? Let us reconstitute the floor area in the Professor's house. 1½ in. deep of ash or sand, remainder is a basic secret straw, dry grass, peat moss or any dry litter. Does the tonnage of droppings come under dry litter?

The deeper the litter the better. The Professor's is 3 ft. deep. The most he has seen in England is 3 in. Deducting the cubic space of excrement concentrated on the Professor's floor, he certainly needs that depth to equal the 3 inches found in England without the night droppings. No lumber in the Professor's house. Where is the water supply? There is an ample supply of foods buried in this litter! Thank goodness we rise at 4 a.m.

The fourth point in question : Management.

"Throat-cutting," the Professor assures us, is our universal policy! Were he to say "Lack of co-operation," he would most assuredly hit the mark. The necessity of this is only too apparent. Have they ever tried to change a leopard's spots? It is not lack of knowledge for co-operation which is the preventative, but the result of co-operation in only too many cases. The suggestion for co-operative settlement is apparent in our Smallholding's Society of many years standing. "Let them acquire land, erect intensive houses, etc.," fails absolutely by those most deserving and energetic, by quite a small factor, the lack of that all-powerful magnet—money.

The fifth point in question : Variety of breeds to be kept.

The Professor assures us the Black Orpington holds the realm, closely followed by the White Leghorn and Langshan. The importations from Australia of Black Orpingtons has not confirmed his statement to any great extent. The suggestion for a National Test cannot be relied upon when our county tests show such a fluctuation in test winners for variety of breeds. Concentration on strain building has helped to decrease the size of egg and undermine the resisting power of disease. The Mother Country has much to learn no doubt in many quarters, but has the Professor enlightened us with any fact whatever? Is it not possible the Mother Country was the instigation of Australian methods displayed at the Crystal Palace at the Festival of the Empire? Has Wembley played its part in this visit? No doubt the Professor has had ample experience to second his remarks. But the outstanding point in question is, If flock average is, indeed, higher in Australia than England, IS IT practicable here?

Yours faithfully,

MOTTLED.

LIGHT BREED v. HEAVY BREED.

To the Editor of "Eggs."

Dear Sir,—It is not my intention to boost one breed over another, but rather to give the "devil" his due. It is not fair to "pit" one Leghorn against one R.I.R., but rather to take them as a flock.

As Mr. Morrison has stated, 400 heavies consume as much feed as 500 Light breeds, and if such is the case, then the White Leghorn has a big advantage. I would go further than that, and say 500 White Leghorns could be handled as easily as 400 Rhodes, when everything is taken into consideration, which, if true, would turn the balance greatly in favour of the Light breed.

Last year I had 100 R.I. Reds in a house 24 ft. x 16 ft. The return in money value for eggs was 15s., whilst this year 120 Leghorns occupy that same house; the return in money value for eggs is £1 1s.

Now I do not consider it takes any more labour to care for the extra 20 Leghorns, or that it costs any more to keep them than the 100 Rhodes. The cost of labour and feed is the chief item after allowing for rearing.

As an instance in cleaning out daily—125 Rhodes return two buckets of droppings daily, whilst 120 Leghorns only one and a half buckets; also more food is taken in the shape of grain and wet mash to the Rhodes, so, therefore, the Rhodes are costing more for labour and feed. The extra labour I get with Leghorns is when I collect the eggs; size and number in advance of the Rhodes at any season of the year. Below I give what I consider is a fair way of sizing lights against heavies, but I do not **state** that the feed costs are as shown, but have taken Mr. Morrison's conclusions, Mr. Few's figures as to return of eggs laid and sold, also his price realised for hens and cockerels. In addition, my own conclusions arrived at through experience of handling both breeds :—

120 Leghorns—average 170 per bird—		
Return in egg value		£170 0 0
Sale of hens at 1s. 6d. each		9 0 0
		179 0 0
Less 9d. each loss on cockerels ...	£4 10 0	
Rearing cost at 6s.	£36 0 0	40 10 0
		£138 10 0
100 Rhodes—average 160 per bird—		
Return in egg value		£133 6 8
Sale of hens at 3s. 6d. each		17 10 0
Profit on cockerels at 1s. per bird		5 0 0
		£155 16 8
Rearing cost at 7s. per bird		35 0 0
		£120 16 8

A difference in favour of the Leghorn of nearly 3s. per bird.

I have put the loss at 9d. on the Leghorn cockerels, as I kill and burn at three weeks old, and I think 9d. is a generous allowance.

To rear the extra 20 Leghorn pullets would be more balance by the costs of caring for the Rhode cockerels till the 6s. stage is reached, which I consider a good price to get for cockerels at four months, as that would be about the average age for a March hatched bird if sold in July—unless crate fattened.

A 3s. 6d. return for a Rhode hen—sold alive—at the end of her laying season, I consider a good one also.

The Leghorn is capable of quite two dozen more eggs yearly than the Rhode.

My Rhodes average 180 pullet year, whereas Leghorns have this last two years passed 200.

I trapnest Rhodes, but W. Leghorns have not been trapnested for two years, and the average for White Leghorns this month is over 66 per cent.

The above remarks are not meant to boost the Leghorn at the expense of the Rhode, as I have great admiration for the latter, but were I egg farming solely, instead of poultry farming—i.e., table birds and eggs—I would unhesitatingly plump for the W. Leghorn as being the most economical breed for that purpose.

My Leghorns lay equally as well as Rhodes in the winter months, so I can only think it is a question of strain or management when I hear of the poor winter laying of Leghorns.

I wrote Mr. Newman four or five years ago—his reply to my questions about them was that: "It would be the best breed I should choose for such a place as yours," so readers may gather from that, that it is not an ideal spot.

Yours faithfully,

V. J. YOUENS.

Some Fruit-Growing Notes
to help Poultry-Keepers.
By **F. W. WHEELER, F.R.H.S.**

PRUNING (Continued).

To-day's sketch will illustrate how to treat the various laterals that will be found on main "leaders," but I think before starting on a description and explanation of this I ought to say a few more words respecting my last notes on cutting or "tipping" of leaders for extensions.

After we have obtained sufficient main branches, as was shown in sketch No. 2, we should each year gradually reduce the severity of cutting back these, and after a few years some varieties are best left "untipped" (for instance, strong growers like Bramley's Seedling).

While training bush trees to the open cup-shaped centres, we can always continue rather longer than when dealing with standards or half-standards.

I spoke in last article, when referring to leaders, of cutting back to an "average of two-thirds of the new growths," but it must be borne in mind that it is impossible to give an exact length, and say always cut away one-third, for the strength or weakness of the growth of the trees is the deciding factor. Weak-growing trees may require quite two-thirds to be removed.

Again, the selection of the most suitable eye to be retained also partly guides the length of the new wood retained, and when one speaks generally about "cutting back to an outside eye," it must not be forgotten that with spreading varieties, or irregular growing sorts (such as Lane's Prince Albert), or where branches have been drawn down from upright position by heavy crops of fruit, we must select top wood eyes, or those slightly on one side in order to bring the new extension of the tree back to symmetry.

Now to LATERALS.—The accompanying drawing No. 4, although taken from examples found in my orchard, is a combination sketch and naturally not just one branch on which all the variations to be illustrated could be found in one. It will also be noted that it is broken in places to avoid a long drawing.

Picking up our threads from sketch 3 we have, firstly, at the top the current year's growth :—

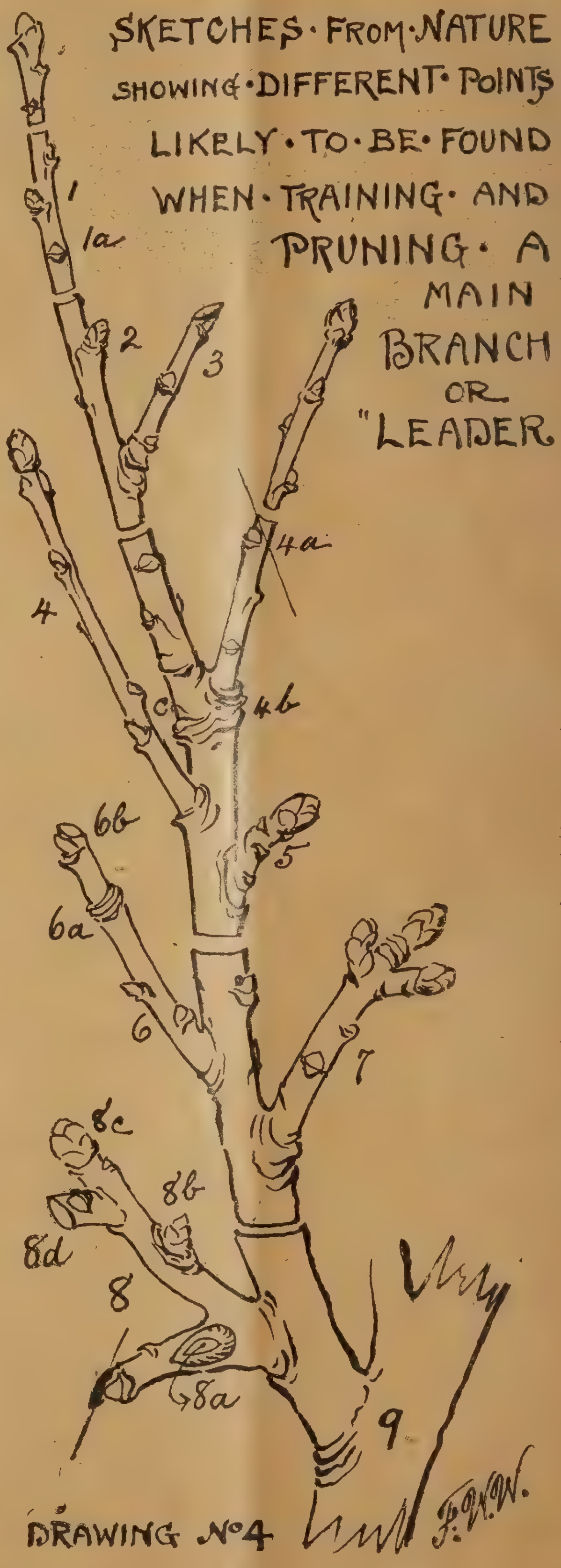
1.—This shows a fruit eye found on trees replanted, and these often have to be lost in order to cut back to a wood eye (1a).

2.—A fruit bud on a two-year-old wood.

3.—A lateral, "long spurred," i.e., cut back to three eyes. Length and strength of laterals vary very much.

4.—A short dart with terminal fruit bud; not to be cut.

4a.—A longer dart, or lateral, which would be cut back to three eyes.


SKETCHES·FROM·NATURE SHOWING·DIFFERENT·POINTS LIKELY·TO·BE·FOUND WHEN·TRAINING·AND PRUNING·A MAIN BRANCH OR "LEADER
1
1a
2
3
4a
4
c
4b
6b
5
6a
6
7
8c
8b
8d
8
8a
9
F.W.W.

DRAWING No4

It must not be forgotten that certain varieties like Worcester Pearmain and Gladstone bear their fruit chiefly on the tips, so, unless extra strong, these laterals must not be cut back or there will not be much fruit.

4b.—This shows growth where a leader was "tipped" or cut back. (c) A similar joint, but rarely with the darts; (4 and 4a) would occur in the gap between 2 and 1a.

5.—A naturally developed fruit bud on the main stem. There should be several of these on the branch between points 4b and 9.

6.—This shows a lateral "long spurred."

6a.—Joint where new growth came in the following year; this would be "short spurred" to one eye, as at 6b.

7.—This shows a lateral long spurred which did not make further wood growth but developed fruit buds. Leave this uncut.

8.—A lateral showing a long spurred case which developed a fruit terminal bud (8c), and a potential fruit bud at 8b.

8d.—Illustrates a new lateral growth below the fruit eye and now short spurred.

8a.—This is given to show a lateral cut right back and the wound healing over; the centre will eventually be covered over.

9.—Where main branch meets the centre "leg" or stem.

I have gone more fully into details than I originally intended, so my sketches and remarks that were promised, re long sloping cuts, must start my next article.

DORCHESTER COUNTY TRIALS.

Poultry Instructor's Report for the Second Month of Laying Trials, 1925-26—12th November—9th December, 1925.

The birds continue in a good state of health owing to the fine cold weather (which is ideal for health and good for egg production) for the first 25 days of the period, turning milder on the last three days.

All pens have had full ventilation all through the moult.

No birds have been in hospital, two being treated for prolapsus with zinc ointment, etc. No. 36 and No. 104, and ten others have had medicine.

Special and first-grade eggs show an improvement, although they have to be a sixteenth of an ounce heavier than first period. Lowest daily collection 95 eggs, 13-11-25. Highest daily collection 130 eggs 9-12-1925.

MONTHLY RIBBON WINNERS AND RESERVES—SECOND PERIOD.

Figures are Eggs and Points respectively.

Section 1.—Capt. Turton, Ensbury (R.I.R.), 27, 344; N. V. Fowler, Bridport (W.W.), 23, 277; A. T. Cake, Came (W.L.), 26, 338; C. A. Streatfield, Beaminster (W.L.), 21, 273; W. J. Southwell, Hazelbury Bryan (R.I.R.), 27 346; H. E. Wilds, Marnhull (L.S.), 23, 281; W. M. Millard, Shaftesbury (W.L.), 25, 325; Miss Oddy, Milborne, (W.L.), 19 229

LEADING PENS IN EACH SECTION TO END OF SECOND PERIOD.

Section 1.—N. V. Fowler, Bridport (W.W.), 1584; Capt. Turton, Ensbury (R.I.R.), 1497; Capt. Turton, Ensbury (W.W.), 1366; Mrs. Clark, Steepleton (W.W.), 1354.

Section 2.—Capt. Turton, Ensbury (W.L.), 1602; Major Leschallas, Charminster (W.L.), 1493; Mrs. Trehane, Hampreston (W.L.), 1414; A. T. Cake, Came (W.L.), 1177.

Section 3.—H. J. Northover, Buckland Rapers (L.S.), 1826; H. F. Wilds, Marnhull (L.S.), 1549; H. Barnes, Blandford (W.W.), 1509; O. J. Collis, Buckland Newton (W.W.), 1442.

Section 4.—Miss Oddy, Milborne (W.L.), 1374; W. M. Millard, Shaftesbury (W.L.) 748; V. S. H. Lawes, Cerne Abbas (B.L.) 703, Mrs. Davis, Pulham (B.L.), 596.

NATIONAL EGG-LAYING TEST, 1925-26.

Report for the First Month—1st November to 28th November, 1925.

For the first time in the history of these tests a falling off in the number of pens entered is to be reported, but it is satisfactory to record a distinct improvement in the quality of the birds both in regard to type and size, as well as in their general condition. The proportion of immature birds is also much smaller.

All the birds were carefully examined on arrival, and they appeared to be healthy, and the unpleasant duty of returning pens was only necessary in three cases, and in each of those cases the symptoms were in a very early stage. Competitors evidently exercise far greater care in examining their birds before despatch than in former years, when many birds arrived with bad colds and showing symptoms of other troubles of somewhat long standing. With two exceptions the crates in which the birds were sent were satisfactory.

During the month the tally of eggs was 15,158—an average of 9.75 eggs per bird, and the daily collections rose from 444 on the first day to 642 on the last.

The average size of the eggs was good, 78.61 per cent. being first grade, which for the first month is fixed at 1⅞ozs.

Twelve birds have been broody during the month, and all of these were of the heavy breeds.

The general health of the flock has been good, but it is highly unsatisfactory to report, as pointing to the increased prevalence of disease, that within a very few days after the arrival of the birds both fowl pox and diphtheria broke out in four different pens at wide distances apart. It may be mentioned there had been no cases of infectious disease anywhere on the test site for many months.

All the affected birds were at once isolated and are yielding to treatment, and up to the present the outbreak appears to be in a mild form and well in hand.

The weather during the greater part of the month was favourable to egg production, but in the last week snow fell heavily, and the birds were confined to their houses for several days.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs for First Month.

Section 1. Championship. Ten Pullets.—A. K. Spiers Alexder, Norwich, Norfolk, 217 eggs; R. A. and A. M. Johnson, Chalford, Glos., 164; The Misses Ransford, Bristol, 158; G. B. Metcalfe, Lechlade, Glos., 142; Miss N. B. Maddison, Dane Hill, Sussex, 137; Arthur Snowden, Crosshills, Yorks., 130.

Section 2. White Leghorns (Five Pullets).—Worcestershire P.F., Bewdley, Worcs., 108; Sydney Smith, Clifton, Notts, 93; J. B. Gow, Cobham, 92; C. Christensen, Randers, Denmark, 99; John T. Kirby, Market Harboro', Leics., 80; Clophill P.F., Ltd., Ampthill, Beds., 79.

Section 3. Black Leghorns (Five Pullets).—Miss Mallam and Mrs. Gifford, Wantage, Berks., 84; W. P. White, Colne, Lancs., 79; I. Margerison, Burnley, 79; Richard Rodwell, Nelson, Lancs., 75; Frank Snowden, Cowling, Yorks., 58; Roland Garrett, Wheathampstead, 57.

Section 3a. White Bresse (Five Pullets).—H. R. Hunter, Winchester, 77; John Thornhill, Great Longstone, 57; E. P. Townley, Woodcote, Oxon. 49; K. A. Crawford, Norwich, 44; A. H. Capper, Reading, 40; Sir Charles McGrigor, Bart., St. Germans, Cornwall, 40

Section 4. Any Other Light Breed (Five Pullets).—J. R. Joy and Co., Tunbridge Wells, 87; Crossley Sykes, Midlothian, Scotland, 54; Miss E. Cavanagh, Dublin, 53; J. H. Thompson, Alton, Hants, 51, J. E. Hughes, Ware, Herts., 50; Lady Latymer, Fordingbridge, Hants., 49.

Section 5. White Wyandottes (Five Pullets).—Capt. H. St. G. Maxwell, Leiston, Suffolk, 109; Richard Rodwell, Nelson, Lancs., 107; Arthur Gawthropp, Northampton, 102; S. and T. Greenall, Grantham, 97; G. H. Rayner, Grantham, 96; Miss M. V. Larkworthy, Liphook, Hants., 95.

Section 6. Rhode Island Reds (Five Pullets).—Gettern Model F.F., Southport, 102, K. A. Crawford, Norwich, 89; W. H. Poe, Maldon, Essex, 87; J. B. V. and W. Cummings, Penicuik, Scotland, 82; Arthur Gawthropp, Northampton, 80; H. R. Hunter, Winchester, 77.

Section 7. Sussex (Five Pullets).—Edgar Clough, Lynn Regis, 97; Mrs. John Godden, Yeovil, 91; F. Rossall-Sandford, Shrewsbury, 87; Mrs. E. M. L. Knight, Odstock, Salisbury, 76; Edward Watkins, Cross-in-Hand, Sussex, 77; F. R. Welch, Bewdley, Worcs., 65.

Section 8. Any Other Heavy Breed (Five Pullets). — Mrs. Ward-Jackson, Kingsland, Herefordshire, 83; Miss E. Beck, Ware, 83; Charles Prior, Ropley, Hants., 68; R. A. Wright, King's Langley, Herts, 64; Miss P. Mills, Bishops Castle, Salop, 56; Colonel S. Sandbach, Abergele, N. Wales, 51.

Section 9. Members N.U.P.S. (Two Pullets).—J. M. Johnston, Southampton, 43; Fred Deakin, Chester, 40; Samuel Hufton, Derby, 42; Lewis Evans, Langport, 37; John T. Kidger, Markfield, Leicester, 35; E. Fownes, Hanworth, Middlesex, 29.

Section 10. Teams of Five Pullets.—Stourbridge Branch, Stourbridge, Worcs., 82; Sheffield Branch, Sheffield, 67; Colchester and District Branch, Colchester, 45; Worcestershire Branch, Bewdley, Worcs., 45.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

AN EGG MYSTERY.

Mr. Ker has sent me the following from the "Aberdeen Press and Journal":—

"On two occasions lately, while passing through Fraserburgh Station, I saw the first time six, the second time twelve, large egg crates, with printed on the end of each in large red letters, "Packed in Denmark." On looking at the labels I found them addressed to different farms in the district.

I wonder if any farmer could tell us what his friends use foreign eggs for, as I never heard of farmers selling them? They are selling eggs at 3½d. each at the present time."

As Mr. Ker says—Comment is needless.

THE INTRA-DERMIC TEST.

In the report of the Scottish Conference last week I referred to Mr. Dalling's interesting paper, and more especially to what he had to say in reference to the intra-dermic test for B.W.D. This interested me greatly, as I understood him to say that no blood being needed, it was a test which could be made by the poultry farmer himself. I am now informed by another qualified authority that the test is by no means an easy one, and it is extremely doubtful whether it could be carried out by any but an expert, so that we must not build too much on it until further information is available. One other point in Mr. Dalling's lecture rather puzzled me. He was emphatic in his statement that healthy chicks are not susceptible to infection after the sixth day, and this I believe is the opinion of the American authorities, although there are others who are at issue on this point. However, we are not debating that now, but Mr. Dalling referred to infection of adult hens, and if the chicks are not susceptible to infection, how is it that hens are susceptible? I must leave it at that.

POULTRY-KEEPING IN BURMUDA.

I have received the following interesting letter in connection with poultry-keeping in Burmuda from Mr. Gosling:—

Dear Sir,—I know you are ever inundated with correspondence, but I thought you would be pleased to hear of success through being a reader of "Eggs" in this quarter of the globe. I think a good poultry paper is at least a 50 per cent. assurance of one's progress in the world of poultry farming, and I know that I am right in saying that, given a two years' working experience on an English farm, coupled with reading "Eggs" and studying Oscar Smart's "Inheritance of Fecundity," one is pretty well equipped to start. I can hear those who have possibly not taken those precautionary measures saying that there always one's bitter experience to learn by. This I admit is true; but I can assure them that to follow this advice means a good deal of the bitterness rubbed off.

To resume, and I am afraid to continue to bore you, I believe I am right in saying that I am the only proud feeder of your mashes here in Bermuda; though I say it with no small feeling of selfishness, from keeping such valuable secrets from the ears of my fellow poultrymen. Alas! I have yet to convert them! At present their way is theirs, and mine is mine; but time will tell. I have held myself aloof from the invitations of local dealers to buy their glorified Hen Chow, or some other spicy concoction of a similar name, together with a 40 page catalogue of the birth and life history of the founder of the Hen Chow Firm, who, so he tells you, rose from the ranks of crossing sweeper to his now exalted position. My friends, the local dealers stare at me aghast when I tell them that I can get the best formulas in the world for nothing, and that without having to write to a Hen Chow King and insulting him by asking him to disclose the ingredients of his merchandise. Ah! Mr. Newman, they have yet to make your badly-needed acquaintance out here!

In fewer words, by an unstinted use of one of your layers' mashes I am getting 24 eggs a day from a pen of 30 February hatched Wyandottes.

Fresh eggs here at this time of the year often go up to 6/6 a dozen. I hear murmurs of "Eldorado"! Well, not exactly. Farmers here have to import all their feed, which taken on an average runs at about 15/- to 16/- a cwt. Table birds command a steady 2/6 a lb. all the year, and old culls can fetch 2/- a lb. also at any time of the year. Labour charges are higher than in England, so on the whole our way is not so paved with gold as it sounds.

Feeding can be applied on the same lines, though I do notice slightly slower growth with the young stock, perhaps useful in curbing precocity with highly-bred pullets.

Rather more drastic ventilation is needed here; I see it has been a popular subject in "Eggs" of late.

Our winters are quite cold enough to necessitate heated hovers for young chicks, though they can dispense with these at three or four weeks old.

The old question of moisture in incubators rather puzzled me at first. Makers' directions said apply moisture after the 10th day, but as the humidity of our island atmosphere hangs around 85 per cent., I decided to apply half as much as directed, and got good hatches. Moisture, I think, is solely a matter of environment; that most of us know.

It may interest readers to know that a world's laying test was to be staged out here, but failed to materialise owing to our Legislative Assembly turning down the vote for the capital needed.

However, we have by no means given in yet.

The standard at our annual poultry exhibition is very high indeed. One thing is needed, the influence of the S.P.B.A. I hope to bring them round to it!

Yours truly,

W. GOSLING.

THE MIDLAND FESTIVAL.

Visitors to the Midland Festival, which is opening on January 7th, at 2 p.m., will be welcomed to the S.P.B.A. Stand, which is No. 5 in Block A.

We hope to meet a good number of our Northern and Midland members there, and discuss matters with them. The Festival will be especially attractive this year, and only once before have we been able to take a Stand in the Midlands, so this is a comparatively new venture, and we hope it will be a great success.

Mr. S. H. Burles, Advertisement Manager of "Eggs," will also be in attendance throughout the Festival.

THE REGISTER—ERRATA.

We very much regret that owing to a printer's error, made after the proof had been corrected, Mrs. Athol Stuart's pen of Rhode Island Reds, registered on page 129 in the Register, is not marked as it should be—"Blood-Tested Stock." This phrase is placed against the pen of birds registered by Mr. Thomson J. Stewart. Will our members please note, that it is Mrs. Athol Stuart's pen that is Blood-tested and not Mr. Thomson J. Stewart's.

THE SMALL EGG FACTOR.

A correspondent writes me in reference to the mating of his pens, and asks :—

> "Would you consider it is mistake to mate my best pen to the "B" cockerels? Some people tell you that out-crossing often results in small eggs, and I should not like this to happen, as my birds are laying good-sized eggs."

It is curious the different deductions people make from the material which they have to deal with. I remember, years ago, a very dirty, filthy old second-hand bookseller who lived to be a very great age, and who had acquired a good local reputation. After his death a letter appeared in the local paper, suggesting that dirt and filth were perhaps conducive to longevity, mentioning this old man as a proof. It never occurred to the writer that the old man may have attained his great age **in spite** of the dirt and filth, and not **because** of it.

Out-crossing can only result in small eggs if a male was introduced from a hen which carried the small egg factor; then undoubtedly trouble would arise, and the pullets from such a mating would be likely to lay a very much greater percentage of small eggs than their dams.

Personally, I do not think size of egg is insisted upon sufficiently when poultry-keepers are buying males. They are too keen after the 300-egg bird, and ignore size of egg almost entirely. They get very prolific pullets, but they also get a very greatly increased number of small eggs.

LIME WASH AND GROUND LIME.

Mr. J. F. Caine asks me if any readers of "Eggs" can give a recipe for lime wash made from ground lime instead of from slaked lime.

He is of opinion that if a good lime wash could be prepared from ground lime it would be of general interest to members and readers. Perhaps some of my readers can give Mr. Caine the information he requires.

WADHURST BRANCH LAYING TEST.

Report to end of November.

This test is being conducted by Messrs. Luff and Bennett, at the Wadhurst Station P.F., and was commenced on October 15th. Twelve birds are competing, four Rhode Island Reds, three White Wyandottes, three White Leghorns, and two Light Sussex. The standard set is considered by some to be rather high for Leghorns, viz., 2¼oz. for first-grade eggs and 2oz. for heavy breeds; these weights count from the beginning of the test. The farm is is a very exposed position, and the health of of the birds is reported good. The leading birds are:—Messrs. Daldy and Lecky (R.I.R.), 34, 34.0; J. Everard (R.I.R.), 34, 30.4; Messrs. Luff and Bennett (W.L.), 26, 18.2.

FOOD PURCHASE SCHEME.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail:—

Fish Meal (Pure White)	**20/0**	**F.O.R.**	**London.**
,, ,, ,, ,,	**20/0**	**F.O.R.**	**Bristol.**
,, ,, ,, ,,	**19/0**	**F.O.R.**	**Swansea.**
,, ,, ,, ,,	**19/0**	**F.O.R.**	**Tynemouth.**
,, ,, ,, ,,	**19/9**	**F.O.R.**	**Grimsby.**
,, ,, ,, ,,	**19/3**	**F.O.R.**	**Bradford.**

PRICES OF MASHES, PER CWT.

	Layers	Growers	Breeders	Chicks
F.O.R. LIVERPOOL ...	11/9	11/9	12/0	12/3
F.O.R. LIVERPOOL ...	12/0	12/6	13/6	13/9
F.O.R. LONDON	11/3	11/3	12/3	12/9
F.O.R. LEITH	11/3	11/3	12/3	13/0
F.O.R. LEICESTER	11/3	11/0	11/9	11/6
F.O.R. GREENOCK ...	12/3	12/6	13/3	13/0
F.O.R. KING'S LYNN ...	11/3	11/3	11/6	12/9
F.O.R. BELFAST	13/0	12/6	13/0	13/0
F.O.R. BRISTOL	11/9	11/9	13/3	13/3
F.O.R. SOUTHAMPTON ...	11/9	12/0	12/3	11/6
F.O.R. PLYMOUTH ...	12/9	13/0	12/9	14/0
F.O.R. ABERDEEN	12/9	11/9	13/9	13/9
F.O.R. HARROGATE ..	12/9	12/6	13/6	14/0
F.O.R. GLASGOW	12/3	12/3	12/9	12/9
F.O.R. STAFFS	11/9	11/9	12/9	12/6
F.O.R. IPSWICH	11/6	12/9	12/9	14/0
F.O.R. SUSSEX	11/6	11/6	12/6	12/6

		Per Cwt.
MAIZE GRITS ...	**F.O.R. LONDON**	**12 3**
MAIZE GRITS ...	**F.O.R. IPSWICH**	**12 3**
S.G. OATS	**F.O.R. LONDON**	**13 6**
S.G. OATS	**F.O.R. SUSSEX**	**12 6**
S.G. OATS	**F.O.R. BRISTOL**	**13 3**
MEAT & BONE MEAL	**F.O.R. LONDON**	**13 9**
MEAT MEAL	**F.O.R. LONDON**	**14 3**
MAIZE GERM MEAL	**F.O.R. LONDON**	**10 6**
MAIZE GERM MEAL	**F.O.R. IPSWICH**	**10 6**
MEAT & BONE MEAL	**Carriage Paid**	**15 9**
MEAT MEAL	**Carriage Paid**	**15 9**

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

LIVERPOOL AND DISTRICT BRANCH.

The Monthly Lecture and Egg Show of the above branch will be held in the "Albany Room," Palatine Cafe, Lord Street, Liverpool, on Saturday evening, the 9th January, 1926, at 6.45 p.m. prompt.

Lecturer—Mr. Frank Snowden, Cowling, Keighley.

Subject—"The General Routine of a Pedigree Poultry Farm."

Egg Show—Three Class Commercial Eggs (4 eggs per plate). Class No. 1—White Eggs. Class No. 2—Tinted Eggs. Class No. 3—Brown Eggs.

1st Class Certificate given in each class. 2nd Class Certificate given in each class if 6 or more entries. 5s. Special given in each class if 10 or more entries.

Entrance fee 6d. per plate. Judge—Mr. F. Snowden.

All entries to be received by the Hon. Secretary before 6.45 p.m.

Members of the S.P.B.A. who are not members of the Liverpool Branch are cordially invited.

R. J. THOMAS, Hon. Secretary.
9, Grey Road, Walton, Liverpool.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answers all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

ALL questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

M. W. (Ware) wishes to know how to distinguish the pullet chicks of a sex-linked cross—Light Sussex hens and Brown Leghorn cockerels. The pullets will be brown or buff coloured and the cockerels silver or white. My correspondent should understand that silver in this sense means white splashed with black.

R. H. (Dewsbury) writes:—"I have 10 White Leghorn pullets kept on the intensive system; they have averaged 15 eggs per week for ten weeks. About a month ago I put them on the following complete mash: 3 lbs. alfalfa, 3 bran, 12 middlings, 6 maize meal, 3 ground oats, and 3 meat and bone meal, costing four shillings, which I have given them as a wet mash, but they do not eat much of it, also eggs have fallen off." He is sending samples of the mash and grain. The feeding consists of two ounces per head of grain in the morning, and 1½ ozs. of mash per head at 3.30 in the afternoon. My correspondent asks what I would recommend in the matter. In the first place, I would recommend my correspondent to get better quality ingredients in the mash he is using; and, in the second place, it would be advisable not to underfeed his birds. Three ounces per bird is scarcely likely to produce eggs. This is not more than a maintenance ration. I would suggest that he improves the mash by getting a better quality middlings and some real alfalfa meal; what he has put in the mash is not alfalfa meal. I have not the slightest doubt that his birds are all underfed. Even before he changed to this mash he was only getting fifteen eggs a week from all his pullets. He should give them a good two ounces of mash, weighed dry, as the first feed in the morning, a scratch feed at mid-day, and two ounces of grain in the evening. If he does that he is likely to effect some improvement.

H. (Surrey) sends me sample of mash and grain. Since starting to feed same five weeks ago there has been a steady drop in the egg yield, and the pullets have gone into a neck moult. I cannot attribute this condition to the mash or the grain, although there is a suspicion of mould in the grain and the mash is a little husky. It is simply a case of the precocious pullet: 20 White Leghorns, hatched 29th March and 6th April respectively, laid 192 eggs in September, reached their peak in October, and steadily declined until December, and are now in a moult; while 39 Sussex, hatched March 7th and 14th respectively, laid 74 eggs in August, reached their peak in September and October and dropped into a moult in November. I am inclined to think that these pullets were a little "hastened"—that is, perhaps the feeding was a little too stimulating during the growing period, for it is very early for March-hatched Light Sussex to begin laying in August. All my correspondent can do now is to feed her pullets as heavily as possible. A little iron tonic in the drinking water as follows would be helpful: Dissolve two ounces of powdered sulphate of iron in a quart of water, and add one teaspoonful of the solution to every pint of drinking water.

R. N. S. (Southampton) writes that he wrote me some little time ago with regard to his Leghorn pullets which were not laying. I replied to the effect that he was not giving sufficient, and also that he should add maize to his feed. At the time my reply came his birds had done better although he added the maize, but remembered past experiences and has reduced this somewhat. What he is now suffering from is a high proportion of shell-less eggs, last Saturday getting seven out of ten. His pullets have oyster shell and limestone grit always before them, and he is adding charcoal. In addition to this a great number of them began to go crooked in the legs, laying about in the straw and laying shell-less eggs when they have recovered.—There may be two explanations of this, either the food is very highly stimulating (my correspondent sent me no particulars of his mash feeding) or these birds have been frightened. For some reason I am inclined to think this latter is probable. My correspondent will be well advised to feed them sparingly for a few days, reduce the animal food in the mash by one half, and I should be glad if he would let me have further details of management as the case is rather a peculiar one, in view of the very high percentage of shell-less eggs, and the condition of so many of the other birds.

P. A. (Ireland) writes:—"I understand, on reading Mendel's 'Theory of Inheritance,' that the rose-comb is dominant over the single comb. Among my best winter laying hens are two White Wyandottes with single combs. The cock which I intend mating with these hens has a particularly good head and rose-comb; his dam has a record of 257 eggs in the year. Needless to say, the cock is absolutely unrelated to hens. Do you consider that in breeding from the above-mentioned hens I run the risk of their progeny having single combs, or would it be—as on Mendel's theory—that in the first generation all will have the dominant character (rose-comb), and that the single comb would only appear if I then bred from this cross, and that even then it would only appear in the proportion of 25 per cent.? (2) Into my pen of Light Sussex pullets from which I do not intend breeding, as they were only hatched last April, my White Wyandotte cock found his way one day I was out. He seemed to have taken a great fancy to his new wives and was most reluctant to leave. I would be very much obliged if you would tell me if these pullets are spoiled for breeding from next year, or would their progeny be true to type if they were mated to a proper Light Sussex cock? (3) I propose building a 20 ft. lean-to laying house against a high solid brick wall. Will this wall be sufficiently warm to act as back of the house, or do you consider it necessary to line it with timber? This wall has a southern aspect."—In answer to my correspondent's questions. We have to assume that the cockerel is "pure" for rose-comb—that is, he does not carry the single comb factor. The fact that he has a rose-comb is not a safe indication of this. If he is "pure" for rose-comb all the progeny of these two hens will also have rose-combs, and it is in the second generation that the single comb will make its appearance. (2) This is an old, old question, and has been previously answered many times. The hens will not be "spoiled," and if they are mated next year to a Light Sussex cockerel, they will produce pure Light Sussex stock true to type. (3) I do not think there is any necessity to line the walls as my correspondent suggests, but I would lime-wash it.

J. S. M. (Housndown) writes to ask whether I have changed my opinion on the question of spice. The answer to this is in the negative. In **my opinion** spices are unnecessary and injurious. It has not been found necessary to use them to obtain the records in the laying tests. Any bird in a bodily condition to lay will lay her full quota of eggs without the assistance of any spice, and I agree with my correspondent when he states:—"Your answer will, I think, be of interest to many poultry farmers in 'embryo,' who often spend a great deal of hard-earned cash on these spices, most of which I think you will agree are to the detriment of their pockets and stock."

"Novice" (Larkhill) has some White Leghorns, hatched on May 16th. One started laying about a week ago, the rest have not started laying yet, although they are looking "tip-top." He encloses sample of the laying meal he is using. As grain he gives wheat and kibbled maize in equal parts—two ounces per bird, given in the morning and mash at night. The mash has an unpleasant smell, and is not appetising. It is very finely ground, but I suspect it to contain a high percentage of palm nut kernel meal, mixed with other cereals. The sample of thirds my correspondent sends is an excellent one, but the bran is poor. I would suggest he tries another formula, which would probably be quite as economical—namely, four parts thirds, one alfalfa meal, one good bran, one and half maize meal, half ground oats, and one fish meal (parts are by weight).

R. H. S. (Henley) asks me to analyse samples of foodstuffs which he sends. The first is a sample of fish meal which is not a good one, and would appear to be very deficient in lime phosphates. The maize meal is just average, and fair value at the money. The middlings are coarse, and contain an excessive amount of bran; in fact, they are little better than pollard. Ground oats are a fairly good sample, and I consider at 16/- per cwt. delivered are fair value. Alfalfa meal is also fair value at the money. My correspondent has a batch of 70 R.I. Red pullets, April and May hatched, and her highest egg yield is 39, and she wishes to know if this is good enough. I think she may be well satisfied. They are on free range, and as this is the case there is no advantage in adding the mineral mixture. She has some R.I. Reds with bad colds. The best plan would be to give sulphate of copper in the drinking water at the following rate:—Dissolve four ounces of powdered sulphate of copper in a quart of water and add one ounce of the solution to every gallon of drinking water, and hold the bird's beak, just above the nostrils, in a strong solution of permanganate of potash. I should be careful to see that the birds were not in any draughts in the house. It is so hopeless to attempt to cure colds when the conditions which cause them still exist

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"Dorset" (Frashford) asks me to say through these columns if I think her feeding is correct. Her pullets and hens were getting during the summer and autumn 5 cwt. pollard, ½ ground oats, ½ maize meal, 5 per cent. yeast, and 2 per cent. meat and bone meal. Lately they seem to be getting a little thin, so the mash was changed to four pollard and the meat and bone meal increased by two per cent. My correspondent wishes to know what would be a good month to change them back to a more bulky mash. It is not a question of months, but rather one of watching the condition of the birds. Her pollard, she says, has much bran in it, but she does not use bran—quite right. There would be no advantage in putting a hopper of bran in each house. I think she would do much better were she to increase the meat and bone meal to 7½ per cent. She asks if I think sulphate of copper once a week has a bad effect on egg production. No, I do not think it would have any detrimental effect upon egg production, but I cannot quite understand what good giving it once a week would do. No, in answer to her second question, I do not think that it is a good plan to give hens and pullets an equal quantity of sulphate of iron and copper in their drinking water in the house once a week. I do not think this would ward off or prevent any ills, neither is it likely to put them off laying. If these things are to be given as a tonic, they are best given continuously for a fortnight or three weeks and then given a rest, but I do not believe in dosing birds unless there is something wrong with them. In reply to her last question, may I say that never at any time do I cremate hens in the drawing room fire. We have not yet been able to trace the samples of meals which my correspondent mentions.

W. J. P. (Hayes End) send a sample of fish meal which it is rather unnecessary to label. I do not call it at all a good sample. Alfalfa meal is of good average quality, middlings just fair, Sussex ground oats are only moderate, the bran is good. In answer to his questions. Fresh green cut bone would take the place of fish meal. Sprouted oats would be a good substitute for green food. They should, however, be fed just germinated, and not allowed to grow into a green mass. His fourth question as to how to test a hot-water incubator I cannot understand. His pullets laid quite well on the following mash:—4 lbs. middlings, 2 bran, 1 maize meal, 1 ground oats, and 1 fish meal, but after they have laid twelve months and moult they are a long time moulting, or they moult late. The only thing for him to do would be to throw these pullets into a moult in September if they have not commenced to moult then. This is easily done by slightly reducing the food and shutting the birds in a warm house for a few days. When the feathers begin to drop put them on to full feed again. I cannot give him a better mash than the one he is using, as the results have been satisfactory, and I certainly cannot give him one which will enable him to keep them until they are three years old for profitable egg production. If he wishes to keep them almost intensively, the best plan would be to give sprouted oats and replace one pound of the bran with one of alfalfa meal.

M. O. H. (Whafedale) sends me a sample of dry chick feed at 25s. 9d. per cwt. This contains cut wheat, split groats, a small quantity of maize grits, green pea and split lentil. The S.P.B.A. could put a much better sample on rail at 17s. 6d. per cwt. F.O.R. in five cwt. lots. The green pea and split lentil in this feed are highly indigestible, and it is never advisable to feed them to young chicks. I do not consider it at all a good sample at the price. He also sends me a sample of chick mash at 25s. 9d. What the constituents are I am unable to determine, but he may be sure no chick mash is worth 25s. 9d. per cwt.

POST-MORTEMS.

E. B. W. The post-mortem examination of the R.I.R. hen showed that she was affected with generalised tuberculosis. The liver was very extensively diseased, and this would account for symptoms of lameness. It is, of course, a contagious disease, and in no way reflects on the management, it being due solely to infection by the bacillus of tuberculosis. Judging from the history of deaths occurring over so long a period, I am afraid that the ground and premises must be heavily infected, and that most drastic measures will be necessary to stamp out the disease. Any birds seen to be ailing should be promptly destroyed and the carcasses burned, or buried deeply with quick-lime, and the houses and equipment should receive a very thorough cleaning and disinfection; if the birds could be removed a very thorough cleaning and disinfection; if the birds could be removed to entirely fresh ground, and the old runs, etc., ploughed up and cropped, it would be most desirable, for, although a building and utensils can be made safe by disinfection, it is not possible by any practical means to disinfect the soil when keeping birds on it the while. A five per cent. solution of carbolic acid in water is recommended as a disinfectant for the houses, etc., which should then be lime-washed, with a quarter of a pound of carbolic acid added to each gallon of the wash.

K. C. S. The post-mortem examination of the cockerel showed that he was affected with avian diphtheria, or diphtheritic roup. This disease is, of course, contagious, and all affected birds should be isolated to prevent spread of infection. Remove the yellow patches in the mouths or throats by scraping, and paint the underlying tissues with a five per cent. solution of silver nitrate, taking care to drop the deposits as removed into a two per cent. solution of Lysol in water. Disinfect the hands and boots before attending to non-infected birds. Make a stock solution of copper sulphate by dissolving four ounces in a quart of water, and of this place one ounce in every gallon of the drinking water for the whole flock, as this acts both as a preventive as well as a curative agent; feed generously, and add two grains per head of powdered Peruvian bark to the mash, or make into a pill with butter and administer to the affected birds once daily. The premises and equipment should be thoroughly disinfected at short intervals, the litter and droppings being collected and burned constantly.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, JANUARY 1st, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is firm and is dearer at London and Hull, the average quotation being 12s. 6d. per cwt., as compared with 12s. 5d. in the previous week. Imported wheat meets a moderate trade at higher figures, and the market closed very firm, No. 1 Manitoba averaging 15s. 2d. per cwt., an increase of 6d. per cwt. on the week. Fine samples of British malting barley are in fair request, but ordinary parcels continue to meet a dull trade. Average prices, however, are unchanged. Trade for both home-grown and imported feeding barley is quiet, and while the former sells at late rates the latter is slightly reduced in price. Oats generally are in little demand, but recent quotations are mostly maintained. Only a small trade is passing in maize, and prices at some markets have declined on the week, Argentine averaging about 9s. 1d. per cwt.

Bran generally sells at recent prices, while coarse middlings are 5s. per ton cheaper at Liverpool and Bristol. Barley and maize meals realise less money, but other meals are unchanged. Quotations for oil cakes are practically unaltered on the week, except at London, where cotton seed cake is in slow demand.

MILLERS' OFFALS.—Bran (British): Bristol, £9; Hull, £8 2s; Liverpool, £8 10s; London, £7 17s. Broad Bran: Hull, £9 12s; London, £9 2s. Middlings—Fine (Imported): London, £8 17s; Coarse (British): Bristol, £9; Hull, £9; Liverpool, £8 5s; London, £7 17s. Pollards (Imported): Bristol, £7 5s; Hull, £6 15s; Liverpool, £6 15s; London, £6 17s. Rice Bran: Bristol, £7 7s; Liverpool, £7 2s. MEAL.—Barley Meal: Bristol, £9 15s; Hull, £10; London, £10 5s. Maize Meal: Bristol, £11; Hull, £10 3s; Liverpool, £10 2s; London, £10 7s. Maize Meal (S. African): Bristol, £9 15s; Hull, £8 10s; Liverpool, £8 7s; London, £9 2s. Maize Germ Meal: Hull, £10; London, £9 10s. Maize Gluten Feed: Bristol, £11; London, £9 15s. Locust Bean Meal: Bristol, £10; Hull, £10; Liverpool, £9 10s; London, £9 12s. Bean Meal: Bristol, £13 10s; Hull, £11 17s; London, £12 5s. Fish Meal: Bristol, £21 10s; Hull, £20 10s; Liverpool, £20; London, £20.

EGGS AND DEAD POULTRY.

Business remains quiet for eggs and quotations continue to decline. Dead poultry became scarce and much dearer at London on Christmas Eve, but the trade has been very quiet since, although supplies are light. Heavy turkeys were not cleared at Bristol before the holidays, and these are now offered at low figures.

Week-end Prices—Eggs (per 120): British, 28s 9d; Irish, 27s 6d, 26s 6d; Danish, 29s 3d, 28s 3d: Dutch, brown, 31s 3d, 29s 9d; Dutch, mixed, 27s 9d, 24s 9d; French, brown, 30s 9d, 29s 9d; French, mixed, 26s 3d, 25s 0d; Belgian, 27s 9d, 27s 3d; Italian, 24s 0d, 20s 0d. Egyptian, 10s 6d, 9s 9d; Lithuanian, 19s 3d, 17s 3d; Polish, 17s 0d, 15s 6d; Chinese, 15s 3d, 13s 0d; Russian, 17s 3d, 14s 6d; Australian, 22s 9d, 21s 9d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 9d, 1s 6d; Irish, 1s 5d, 1s 3d; Others, 1s 7d, 1s 4d. Ducks, 1s 8d, 1s 4d. Geese, 1s 3d, 1s 1d. Turkeys—English, 1s 11d, 1s 7d; Irish, 1s 9d, 1s 6d.

EGGS.

Per Doz.—Ashford: First, 2s 7½d; Second, 2s 5d. Birmingham: First, 2s 8½d; Second, 2s 6d. Bridgwater: First, 2s 7d; Second, 2s 5d. Colchester: First, 2s 9½d; Second, 2s 4¾d. Doncaster: First, 3s 6d; Second, 3s 4d. Dorchester: First, 2s 5d; Second, 2s 4d. Hereford: First, 2s 3d. King's Lynn: First, 2s 8d; Second, 2s 6d. Llandilo: First, 2s 6d. Mold: First, 3s 3d; Second, 3s 0d. Newport (Mon.). First, 3s 0d; Second, 2s 9d. Oswestry: First, 2s 8d. Penzance: First, 2s 4d; Second, 2s 3d. Saffron Walden: First, 2s 9½d; Second, 2s 6d. St. Ives (Hunts): First, 3s 0d; Second, 2s 9d. Salisbury: First, 2s 0d; Second, 1s 11d. Skipton: First, 3s 0d. Truro: First, 2s 1d. Welshpool: First, 2s 8d; Second, 2s 5d. *Carlisle: First, 2s 10d. *Derby: First, 3s 0d. *Ipswich: First, 3s 0d; Second, 2s 6d. *Lincoln: First 2s 9d. *York: First, 3s 0d; Second, 2s 10d.

FOWLS.

Per lb.—Birmingham: First, 1s 4d; Second, 9d. Doncaster: First, †5s 6d; Second, †5s 0d. Hereford: First, 1s 4d. Newport (Mon.): First, 1s 6d; Second, 1s 2d. Penzance: First, 1s 8d; Second, 1s 6d. Skipton: First, 1s 6d. Truro: First, 1s 4d. *Carlisle: First, 1s 2d; Second, 1s 0d. *Derby: First, †7s 0d; Second, †4s 0d. *Ipswich: First, 1s 6d; Second, 1s 4d. *York: First, †6s 0d; Second, †5s 6d.

DUCKS.

Per lb.—Birmingham: First, 1s 3d; Second, 1s 0d. Doncaster: First, †6s 6d; Second, †5s 6d. Hereford: First, 1s 4d. Newport (Mon.): First, 1s 6d. Penzance: First, 2s 0d; Second, 1s 10d. Skipton: First, 1s 3d. *Carlisle: First, 1s 2d; Second, 10d. *Derby: First, †7s 0d; Second, †4s 6d. *Ipswich: First, 1s 4d. *York: First, †6s 6d; Second, †6s 0d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

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Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

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EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN

(Founded in 1912 by RANDOLPH MEECH)

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EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, JANUARY 13th, 1926.

Editorial.

SOME ODDS AND ENDS.

A correspondent writes that a very large percentage of his White Wyandottes have thrown single combs, and he attributes this to out-crossing with another strain. "Why," he asks, "did out-crossing cause such a high percentage of single combs, and how can I eliminate them?"

We once heard a lecturer advise his audience never to out-cross, for he had observed that whenever he did so there occurred a great increase in the number of single comb birds in the progeny. There appears to be some misunderstanding; the single comb was not due to out-crossing, but to the introduction of an individual carrying the single comb factor. One might out-cross, and if the individual introduced was "pure" for rose-comb, single combs would not occur with the progeny. The only way to eliminate the single comb factor would be by the breeding test. Mate a rose-comb male to single comb hens, if the whole of the progeny came with rose-combs we should know the male was "pure" for rose-comb, then it would be necessary to mate rose-comb hens to a single comb male, the progeny of those hens which were "pure" for rose-comb would all be rose-combs, those which were not would throw a large percentage of single combs. It is only by this means that our correspondent can eliminate the single comb from his stock.

UTILITY STANDARDS.

The question of a utility standard has been once gain raised, and we can only regret it, because, n our view, the gulf which existed between the ancier and the utilitarian was rapidly being narowed. Each side was beginning to realise that nistakes had been made. There has been a disinct improvement in the type of birds benched by he utility breeder, while we should give due credit o the fancier, and acknowledge that he, too, has ecognised the folly of extremes, and, with the xception of the purely fancy breeds, which in no vay concern us, is coming into line, and exhibiting tock which, while not possessing all the characeristics which the utility breeder deems desirable, s not so definitely antagonistic to them as was the ase five years ago.

We believe the difficulty would automatically have solved itself, that in the course of a few years we should have heard no more of the utility shows. There would have been one standard, and that an economic one. When we talk of utility standards, what do we really mean? Has anyone really defined it? You take certain characteristics of the layer, and say "this is the utility standard." As a matter of fact, there is a big difference of opinion as to which of the characteristics of the layer are of the greatest relative importance. There is even some difference of opinion as to which is the business end of a hen.

Careful examination of the standards published by the Poultry Club, as far as the breeds which are generally regarded as utility breeds are concerned, would, we think, convince most of our readers that a utility standard is wholly unnecessary, and with some slight modifications, and greater control of judges by the Poultry Club, they may be accepted by the utility breeder. Let us be perfectly candid with ourselves, and admit that we have our own extremists. To talk of pelvic bones like "tissue paper" is to go to the extremity of the extreme, and is just as destructive of utility qualities as breeding for abnormal size or any other specific character which is detrimental to the utility characters as a whole. **The breed standard should be the utility standard.** We believe the Poultry Club has made few mistakes here, the mistake has been made in not insisting on the judges observing the standard. What we believe would be the greatest service the breed clubs could do, would be to fix maximum and minimum weights. There are three factors which have been most destructive of the utility qualities in the various breeds:—(1) The craze for size; (2) for wealth of feather; (3) for excessive head-points.

The first has done more to kill Orpingtons than any other factor. As a utility fowl they hardly exist, although there was a tendency on the part of exhibitors to be less extreme than in the past. The White Wyandottes exhibited by the fancier also failed badly in this respect. Had size not been such a fetish, the exhibition Wyandotte would have suited the requirements of the utility breeder. When great size is desired, the first essential is the selection of those birds which are slowest to mature sexually. Selection on this basis is, of course, absolutely uneconomic. The same rule applies to any character which is not an economic character or correlated with one, as, for example, wealth of feather or excessive head gear. Therefore we venture to express the hope that the Poultry Club will endeavour to make those slight, but necessary, modifications in the standards which are essential to utility characteristics, and will endeavour to impress and influence judges in such a manner as will effectually prevent the extremist ruling the roost. **The extreme can never be characteristic,** whether it be the excessive head gear of the Minorca or the "tissue paper" pelvics of the layer. In the end it is destructive.

THE MARKETING CONFERENCE.

The Conference convened by the National Poultry Council and the National Farmers' to discuss the Marketing of British Eggs and Poultry takes place on January 27th. We may express the hope that not too much time will be wasted in villifying the English egg, but the delegates will at once get to constructive work. We know all about the English egg, and the shortcomings of producers, and what we want now is a constructive policy. We have talked enough of organisation during the past few years, now we want to organise on definite lines. We know all about grading, etc., and improved marketing, but the first step, it appears to us, is not the grading of eggs, but the elimination of the bad egg, which condemns the English egg, and glorifies the foreigner. Unless we can put a stop to the marketing of inferior English eggs as "English new laid," all the efforts of the delegates will be so much waste time. The English egg must be good enough to advertise itself. It can never do so if, as in the case of one of our cooperative societies, bad eggs, which led to a loss of £600 in one year, are sent in by members. Cooperative societies have met with indifferent success. We are apt to allow ourselves to be overcome with the glamour of figures, and miss the essential points as to the average price received by the producer and the cost of marketing. The true spirit of co-operation is best evinced in the combination of a few producers who share the work of grading, packing, and marketing themselves rather than in the formation of societies, which necessitates depots, with rents and taxes, salaries, etc., all of which have to be charged to the producer, and we must acknowledge that the profits on eggs are too small to bear these costs.

DEVON COUNTY EGG-LAYING TRIALS, 1925-1926.

Report for the Second Period—Nov. 12th to Dec. 9th, 1925.

The weather during the month was cold and frosty, with periods of heavy rain.

Many birds are still recovering from the moult, and a few fresh cases have occurred.

The health of the birds throughout the month was excellent.

The highest scoring pens for the second period were as follows

Figures are Eggs and Points respectively.

Light Breeds.—Mr. H. C. Wood (W.L.), 102, 1232; Mr. G. K. Simmons (W.L.), 92, 984.

Heavy Breeds.—Mr. H. C. Wood (W.W.), 99, 1053; Brig.-General M. E Richardson (W.W.), 85, 1023: Mrs. F. Disney (R.I.R.), 93, 1023.

Buff Rock Pullet No. 79 laid 26 eggs during the month, while Rhode Island Red pullets Nos. 104, 113, and 133 each laid 25 eggs during the same period.

Modern Poultry Feeding.

By TOM NEWMAN.

BRAN AND MIDDLINGS.

Several samples of bran and middlings of variou grades have been sent me, the writer stating tha he wishes to economise in feeding, and there is difference of as much as 50/- per ton in the bran as between the best and the worst sample. I am asked to give a formula, as cheap as possible, without impairing efficiency. One does not need to be urged to do that, but it cannot be done by recommending cheap and inferior foods. Generally there has been too much economy practised, or what is called economy, with the result that the egg yield suffers. Let us take the analysis of a good and inferior sample of bran, most of those who condemn its use base their arguments on an inferior sample :—

GOOD BRAN.		LOW GRADE BRAN	
Crude Protein	15.7	Crude Protein	11.
Fats	4.4	Fats	3.
Carbohydrates	54.2	Carbohydrates	51.
Fibre	8.8	Fibre	16.
Ash	6.3	Ash	6.

It will be seen that the poor-sample has double the percentage of fibre; five per cent. less protein, and is altogether too poor to feed. It is a clear case of the good sample being worth the extra 50/- per ton.

Now, taking two samples of middlings, or for our purpose we will take three: Fine, or Flour Middlings, Second grade and third grade :—

	Fine.	Second Grade.	Third Grade.
Crude Protein	15.4	16.4	14.3
Fats	3.4	5.0	4.8
Carbohydrates	64.0	56.2	55.6
Fibre	1.8	5.3	7.7
Ash	2.4	3.6	4.3

A combination of the low grade bran and the third grade middlings would lead to a very poor egg yield, and some digestive trouble, yet this is what is constantly occurring, sometimes in combination with a very inferior sample of ground oats, and the cry is: "Why are there no eggs?" A very high percentage of bran and middlings sent me are too poor to be used for poultry foods, and readers should not buy the coarse brown middlings which resemble fine bran.

In reply to a correspondent, our experiments have demonstrated that dried skim milk has at least an equal value as dried full milk as far as the development of the chick is concerned. When milk is fed to breeding stock the Wellingham experiments have demonstrated that better fertility, hatchability and stronger chicks resulted than when any other form of animal protein was fed. I cannot say definitely which is superior in this respect, fish meal or a first-class sample of meat or meat and bone meal. I should prefer the fish meal in theory because of its high content of lime phosphates. As far as we have gone with the experimental work, the evidence would appears to be that milk oses its value as the chick becomes older, and nothing is gained by feeding it after it reaches the age of three months. For the first six weeks of ts life, however, there is nothing to equal milk.

LACK OF EGGS.

A reader writes from Bradford :—

> "Owing to a small production of eggs from 76 hens, 1924 hatched, and 90 pullets, March, April and May hatched, we are asking your advice. From hens one to four eggs per day (viz., 76 hens). Pullets 15 to 20 eggs per day last two weeks. All White Leghorns. We may point out three pullets have laid 57, 65, 65 eggs respectively in three months—namely, October, November and December. We send you samples of our mash, made up as follows: 10 lbs. flaked bran, 20 lbs. seconds, 7 lbs. S.G. oats, 7 lbs. maize germ, 7 lbs. meat meal, 1½ lbs. mustard. They have every comfort possible; cannot understand why production is so low. Will you kindly examine sample and report per return what you think best to be done. Practically all the stock are in good condition; they all started moulting early October."

On examination of the foods sent we found that what is described as "flaked bran" was merely ordinary bran moistened and passed through the rollers twice, and at 11s. 6d. is exceedingly dear, but it is the combination of the seconds, ground oats, maize germ meal which has probably occasioned the trouble. The mash was altogether too fattening, more particularly for the 76 hens, and if my correspondent had examined these carefully I am convinced that he would have found they were in an overfat condition. We notice he says, "They have every comfort possible." It is probable they are a little too comfortable, and would do better with a little harder feeding. I have recommended that the seconds should be replaced with 30 lbs. of good middlings.

The May hatched pullets may have been late in coming into lay because of the cold spell we have had, but they should be producing eggs now. Often when a pullet is just about to produce eggs a cold spell will check her. I think, in the main, the cause of the trouble is that the mash is too fattening, and most of the pullets will be found to be in an overfat condition.

I do not believe that the mustard would be in the least degree helpful.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sen by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

THE FOOD SCHEME AND CHICK FEEDS.

May I draw members' attention to the Dry Chick Feeds which can be supplied them through the Association, at prices which they cannot obtain elsewhere? In many of the higher-priced dry chick feeds, such ingredients as millet, green pea, and lentil are included, which are very difficult of digestion, and when retailed at from 25/- to 30/- per cwt. show a very handsome profit, while, as we have been able to show, they are absolutely injurious to chicks. The addition of dried insects in any form is of no advantage, as the equivalent can be easily fed in the mash in the form of meat meal or fish meal, or, better still, dried skimmed or buttermilk. The S.P.B.A. mash, which gave results which have not been beaten in this country, or, for that matter, equalled, can be mixed at a cost of not more than 16/- per cwt., taking the most unfavourable conditions, and this, in conjunction with the dry chick feeds, f.o.r., at 17/6, should give the most satisfactory results.

DRY CHICK FEEDS.—No. 1, 17/6; No. 2, 15/6.

Members should please state their nearest station when ordering.

SCRATCHING LITTER.

Mr. W. M. Plaistowe writes from Natal :—

> "I should be glad of your opinion on the necessity or advisability of scratching litter. In a recent article in "Eggs" Mr. Winthrope Somerville condemned the practice of feeding grain in litter as unsanitary, and I read that Mr. Toovey is feeding the grain in troughs since the outbreak of roup on his farm. If the litter is dispensed with, it would mean a big saving in money and labour, but would the birds get enough exercise without it? I have fair sized, not very large, grass runs, and could give the birds free range if I wished, the difficulty about the latter being that eggs are often laid in the long grass and remain undiscovered until stale. Do you think I should get as good egg production by dispensing with scratching litter, giving birds free range, and scattering grain widely over the grass paddocks?"

While acknowledging that there is much in Mr. Somerville's contention that feeding grain in litter is insanitary, it must be admitted that this depends a great deal on the management of the litter; if it can be kept dry then there is very little danger, but the practise of spreading fresh straw on the top of the damp litter instead of removing the old stuff is very much to be deprecated. Where birds have a fair range litter is hardly necessary, but where the runs are small and the birds confined a great deal to the house I consider it to be essential. It is supplied to give the very necessary scratching exercise, which not only prevents the birds becoming overfat, but assists in the better assimilation of food, does much to prevent outbreaks of feather-plucking and egg eating, not to mention other vicious habits of idleness. In Mr. Plaistowe's case, as he can give the birds free range, I do not think it necessary to supply litter. I have often found when raking over the litter in farms I have visited that it is damp at the bottom, and in addition we find deposits of grain, covered with mould. These grains are eventually raked up by some industrious hen, which generally results in a post-mortem examination. Mr. Toovey undoubtedly acted wisely when, after the outbreak of roup, he fed his stock from troughs instead of giving the grain in the litter. Damp litter is generally due to a badly ventilated house, or to crowding too many birds on a small space.

FIRST CROSSES.

A Lancashire reader writes:—

> "This year (1925) I have gone in exclusively for the first cross pullets (Wyandotte x Leghorn) and have over 600 pullets, but the results are far from satisfactory. They were hatched in March, and commenced laying in October (some in September), but broodiness soon became prevalent, and when broken of this they neck moulted. My broody coops are full up now. My pures (Wyandottes and Leghorns) are doing very well, and I think I shall revert to these and leave crosses alone. Much has been said of the first cross, but do you think they can be in any way superior to the pure on a commercial farm? I mention my experience with crosses in case it may interest you. I know you do not advocate mating a Wyandotte cockerel with Leghorn hens, but I had no alternative last year."

Better results, with less broodiness, would have been obtained had the reverse mating been made. In my view, which I have repeatedly expressed, the first cross offers no advantages to intelligent breeders over the pures. There is bound to be an element of uncertainty which is not so great where careful selection of pure-bred stock is made. There would be no talk of delicacy if selection was made on the right lines. Good strains of Black and White Leghorns, Buff Rocks, and Rhode Island Reds are every whit as hardy and prolific as any first cross. When we complain of our inability to rear pure breeds without a heavy mortality, we should at least be sure that we ourselves are not blameable.

LIGHT SUSSEX AND THE INTENSIVE SYSTEM.

I have received the following letter from a member:—

> "I should be glad to know if you think the following case is at all extraordinary. I have a pen of ten Light Sussex pullets, hatched in February, 1925, kept intensively, and trap-nested since the 1st September last. One of the pullets started laying on the 7th September and laid 70 eggs without a break in the first 70 days; she then took one day's spell and then laid a further 34 eggs, then one day's spell and up to date a further 12, making 116 eggs in 118 days, and she is still going strong, laying early in the day and quite fat. I am anxious to know how many she lays without going broody. I have had many good pullets, but this one seems to be quite out of the common. She is out of my own breeding pen, by a cockerel which I purchased from a member two years ago. Of her half-sisters in the same pen seven have now a record of between 80 and 90 eggs since the 11th September, although all of them had a slight period of broodiness, lasting from five to ten days. I shall be glad if you will tell me if the first described pullet is what I take her to be."

The record in itself is a very wonderful one. What is most interesting is the fact that Light Sussex pullets can be kept so successfully intensively. I do not mean to imply that it is impossible to keep Sussex intensively, but they are the last breed in the world I should recommend for this purpose, as in close confinement they are apt, unless very carefully managed, to put on internal fat, and to become exceedingly broody.

We must recognise, of course, the conditions, and selection for heavy egg production does much to eliminate broodiness, and, of course, the production of eggs is against the tendency to put on internal fat.

LEICESTERSHIRE COUNTY COUNCIL.

EDUCATION COMMITTEE. COUNTY LAYING TRIALS.

Second Monthly Report for the period—Nov. 16th-Dec. 13th, 1925.

The past month has been marked by very cold and frosty weather and some snow. The lowest temperature was recorded on December 6th, the minimum on that day being 14 deg. The cold frosty weather has necessitated keeping the birds confined to their houses for part of several days, but despite this drawback the birds have kept in good health, and egg production has steadily increased. During the eighth week of the trials 495 eggs were laid, the full total for the eight weeks being 3328 eggs. The size of egg continues to be very satisfactory, only a very small proportion being under weight.

POSITION OF LEADING PENS AT END OF SECOND MONTH.

Figures are Eggs and Points respectively.

Section A. Light Breeds (Five Birds).—Mrs. R. Crawford (W.L.), 160, 1800; Mr. A. C. Moore (Blk. L.), 153, 1691; Mr. H. B. Howe (Blk. Min.), 157, 1658; Mr. Geo. Ryle (W.L.), 145, 1651.

Section B. Heavy Breeds (Five Birds).—Mr. H. B. Howe (W.W.), 177, 1846; Mr. Geo. Ryle (W.W.), 154, 1777; Mr. J. M. Salmon (R.I.R.), 152, 1738; Mrs. E. Ball (R.I.R.), 154, 1716; The Misses Rankin (W.W.), 161, 1656; Mr. M. Norton (R.I.R.), 126, 1426.

Section C. Any Breed (Two Birds). — Mr. B. J. Buckler (R.I.R.), 74, 834; Mr. S. Ryle (R.I.R.), 50, 613. Mr. W. H. Stevens (R.I.R.), 53, 578; Mr. H. Glover (W.L.), 47, 547; Miss T. E. Dear (R.I.R.), 38, 469; Mr. R. J. Sadler (R.I.R.), 55, 441.

H. T. ATKINSON, County Poultry Instructor,
6, St. Martin's Leicester.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answers all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

" BODIES " for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

ALL questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

" Beginner " (Glamorganshire) wishes me to give recipes for growing, breeders', and layers' mashes—particulars as to how I arrive at the different ingredients, and why they differ; also he would appreciate a full account of the Wellingham experiments. He wishes to know which is the best one for rearing chicks from the shell to maturity, and he suggests that it would be possible for us to arrange all the articles in " Eggs " clear of advertisements in such a way that there would be no fear of interfering with the reading matter when cutting out a leaf in connection with advertisement matter. Here are formulae for layers', breeders' and growing mashes:—Layers': 14 lbs. bran, 56lbs. middlings, 28lbs. maize meal, 14lbs. S.G. oats, 14lbs. fish meal; Breeders': 7 lbs. clover meal or alfalfa, 7 lbs. bran, 56 lbs. middlings, 14 lbs. maize meal, 14 lbs. Sussex ground oats, and 14 lbs. fish meal; Growers': 3 lbs. bran, 4 lbs. middlings, 1½ lbs. Sussex ground oats, ½ lb. maize meal, ½ lb. meat and bone meal. I am sorry that space will not permit me here to comply with his request to give the particulars as to how I arrived at the different ingredients, and why they differ. This is often explained many times under Modern Poultry Feeding, neither could I here go into a full account of the Wellingham experiments. The question as to the best method. The one used for chicks from shell to maturity is too comprehensive, and space will not permit me to give a reply. I do not think he will find much difficulty in tearing advertisement pages out of " Eggs " without interfering with the reading matter.

L. M. S. writes that she has a house in which are 120 White Leghorn pullets; they have been kept intensively for seven or eight weeks, now four of the pullets are badly pecked just above the tail on the left side and round the vent—two right into the bone. Could I tell her what to do with these, what is the cause of cannibalism, and what to do with them all? I expect the original cause of the trouble is that there may have been an injury to one bird; perhaps bleeding at the vent, after laying an egg, or due to some accident. This has started a trouble which may soon develop into cannibalism if care is not taken. The injured bird should be removed. If the part is dressed with carbolised vaseline or a two per cent. solution of Izal it should soon get right, but the bird should not be returned to the pen until completely recovered or there may be a bad outbreak of cannibalism. There is also a deficiency of animal food in the mash, which is made of: 1 bran, 1 alfalfa meal, 4 sharps, 1 maize meal, 1 oatmeal, and ½ fish meal. It would be advisable to increase the animal food by another half pound, at the same time supply as much fresh green food as possible, and give sulphate of iron in the drinking water in the following proportions: Dissolve two ounces of powdered sulphate of iron in a quart of water, and add one teaspoonful of the solution to every pint of drinking water; continue for a fortnight, and then give a week's rest. Should there be a further outbreak, it may be necessary to anoint the birds with some nauseous compound, such as bitter aloes and lard. Frequently this cannibalism assumes alarming proportions, and it is very necessary that every effort should be made to check it. I have written to my correspondent direct.

" Worried " (N.B.) has heavy losses from chicks, and writes for help. The symptoms described are that the chicks, which were apparently healthy until fourteen days old, suddenly began to stagger about and seem to have fits. They would lie as if dead for a few seconds, and then get up and appear better; the mortality has been very high. My correspondent gives me no information as to feeding, and so I am unable to help him much, but the probability is that the trouble is due to brooder pneumonia, and this would be caused by a faulty atmosphere under the brooder. I would suggest he sees to this, and at the same time gives the chicks the following tonic, namely, forty grains of citrate of iron and quinine to the gallon of drinking water, and allow them nothing else to drink.

K. C. H. (Grimsby) is mating up some second-season White Leghorns which laid exceptionally well in their pullet year. He has just been told that if second-season hens are mated for the first time, and have not previously had a male running with them, that the large majority of the eggs would be infertile. He wishes to know if this is the case. No, this is not so—at least, I have never found it so in my experience, and have never heard of such a suggestion before. It does, however, happen sometimes that if a male is not mated during his first year he will be sterile in the second; but I have never known this to happen in the case of hens.

E. M. B. (Westlake) has 52 Black Leghorns, and is troubled to find one or two shell-less eggs on the dropping board in the morning. His feeding is one part clover meal, three middlings, one biscuit meal, one Sussex ground oats, one maize meal, and one fish meal (parts are by measure). He has also been getting quite a number of double-yolked eggs. In this case the feeding is too stimulating, and it is desirable that a change should be made. It would be well to omit the maize meal, add one part bran to the mash, and increase the middlings by another part. At the same time reduce the fish meal to a half part. This should check the production of the double-yolked and shell-less eggs, and no further alteration in the feeding should be necessary. If a few thin-shelled eggs are still produced, my correspondent should remember that there may be one individual in the flock with a tendency to lay thin-shelled eggs, and it would be unwise to change the feeding of the flock for the individual. The double-yolked eggs indicate that the feeding is too stimulating, and in the flush months of the year, which will soon be here, it might result in prolapsus if it is not changed at the present time.

G. D. E. (Aston) sends the names of three incubators, and asks if I think the highest-priced one will give him so much better results that the additional expense will be justified.—The answer to this question is NO. The lower-priced machine will, in this case, give him satisfactory results. (2) His friend is not quite right when he says that Rhode Island Reds with light eyes are better layers than those with red eyes. This may be true of his own particular flock, as many of them may have inherited the light eye from a dam which was a prolific layer. There is no evidence that the light eye and heavy egg production are " linked," as he suggests. (3) Houdan-Orpingtons are an excellent table fowl, and a far more economical cross than the Sussex-Orpington.

D. S. O. (E. Lancs) has had a disastrous hatch, and asks for an explanation. Felts were removed on the 7th and 14th days, the machine was run at a temperature of 103 degrees throughout, except that on the tenth day it ran up to 106 for a few hours. He asks, "Was I wrong in removing the felts? Did the rise in temperature on the tenth day cause the trouble? Most of the eggs contained fully-developed chicks; in the majority of cases the membrane was very dry and the chick small and dry."—I think the eggs were at fault; it is most probable that many of them were stale, or had been very badly stored. The temperature of 106, for a few hours, would not have caused such a bad hatch as this; the germ can stand a much higher temperature for a longer period and still survive. It is wrong, in my opinion, to follow maker's instructions and remove the felts on the 7th and 19th days. Better results are obtained when one felt is removed on the 19th day and the other allowed to remain, but I do not think that in this case the poor hatch was anything to do with the incubator or methods of incubation. (2) In answer to the second question, it is not possible to tell whether a newly laid egg is fertile or not. The white spot, to which "D.S.O." refers, is the germinal disc, and is the contribution of the female; it does not indicate that the egg is fertile. (3) If you have one house, in which the birds ar econstantly suffering from colds, then we can only conclude that the house is at fault. Are they in a draught when on the perch? Try this with a lighted candle. The house may be badly ventilated,, but you do not give me any details, so I am unable to help you.

C. C. (Driffield) is the unfortunate possessor of a strain of birds which last year produced a much higher percentage of cockerels than pullets, and he wishes to know "whether there is anything in it?"—meaning whether it is possible to select eggs which will produce a higher percentage of pullets. Also he has heard that every alternate egg is a pullet egg, by which he means, I suppose, that if the first egg laid hatches a cockerel chick, the next one will be a pullet. I am afraid there is nothing in it, "C.C." So far we are not able to do anything to influence the sex of chicks; whether science will ever be able to accomplish it I can't say. I am doubtful as to the scientists' ability to do anything in this line which will be of practical value to the poultry-keeper.

Selection (Derby) sends me the records of 21 hens from which he proposes to select his breeding pen. The breed is the White Wyandotte. There are six birds with records of between 161 and 178. They are all March hatched; in only one case did they produce eggs before December. Under these circumstances it would be inadvisable to mate these; and the sixth was broody in December, and on four other occasions—it would be unwise to include her. Forty-two is a good layer, but a large proportion of her eggs are mishapen. Fifty-one has a record of 231, but she did not lay a 2-oz. egg until early February, and is a small bird. Sixty-three, with a record of 241, is the best birds of the bunch, and my correspondent should reserve cockerels from her, as she is good type and size, and lays a nice-sized egg. He will be most unwise to breed from the pullet with the single comb, in spite of her record; the remaining birds will make a very good pen. (2) The sample of fish meal is a good one. It is better value than the meat meal at 22s., which is but a moderate sample at such a price. (3) I cannot say, without further particulars, why your friend's birds should lack size, although bred from good-sized parents and fed as your own stock is, which you say is big enough. There may be environmental conditions, or something may be occurred during the rearing, such as a period of underfeeding or an outbreak of disease.

L. P. (Wexford). If you do not like the cockerel, despite the fact that his dam's record is so good, I should certainly not keep him You say he does not "look like a breeder." Well, his dam's record will not make him one; a cockerel from a good hen should exhibit the characteristics of a breeder of layers, but even a good hen will throw an occasional bird which will not exhibit these, and it is unwise to use them for breeding. It is probably a case of reversion. (2) We have had occasional reports that soya bean meal has caused digestive trouble, but have no records of its having caused the death of a bird. The same complaints have been made by stock-keepers, and I believe the matter is being investigated. As far as I know at present, it depends on the agent used in extracting the oil. (3) No, I do not recommend blood meal for egg production for reasons already given; it is deficient in lime phosphates, and does not compare with a good sample of fish meal as an egg producer. (4) I have frequently heard it said that mangolds cause poor fertility and hatchability, but I cannot obtain any evidence that such is the case, and from my own experience I should say that it is not the case. (5) You should read Miss Malcolm's article in the S.P.B.A. Register, this will give you the information you require

"Hopeful" (Wigan) writes that he has recently obtained about one acre of grass land, and one poultry shed 8 ft. x 8 ft., and one scratching shed adjoining, 8 ft. x 13 ft. x 14 ft., and 20 fowls (two year old), and 17 June-hatched pullets. He is feeding kibbled maize and wheat in equal parts—two ounces per bird, at 9 a.m., at noon half an ounce per bird, and 3 p.m. a wet mash, consisting of:—1 maize meal, 1 ground oats, 1 bran, 1 clover meal, 1 meat meal, and 4 middlings, all mixed. The egg production is four per day; the pullets are not yet laying. He asks whether the 20 hens are worth keeping this summer for egg production, and also whether the Buff Orpington pullets are worth keeping, as they seem a backward lot for six months, loose in feather and not plump; the best breed for egg production for such an exposed position, and the approximate number of birds to be kept semi-intensively on an acre.—I am inclined to think the stock my correspondent has is not particularly good, and I would advise him to get rid of the Buff Orpington pullets. They are very late hatched, and his best plan would be to fatten them and sell for table birds. His feeding is fairly correct, but he is giving too much grain in the morning, and I would advise him to increase the mash to two and half ounces per bird, weighed when dry; drop the half ounce of grain per bird at mid-day and give a full two ounces as the last feed, otherwise his feeding is fairly correct. The best breed for his purpose would be the R.I. Red or Buff Rock, as he is on such an exposed site. As to the number of birds to be kept to the acre. He will have to keep at least one-third of his ground as rearing ground, and I would suggest he does not try to run more than 200 laying birds to the acre.

J. R. R. (Horsham) writes:—"Assuming the intensive house to be 30 ft. long and 10 ft. wide, and divided into three sections, each of which would thus be 10 x 10 ft., how many Leghorns could be most profitably kept in each section? Would 25 be too many (4 square feet per bird), or would 15 (6½ square feet per bird) be better? If 15 too many, what would be best number? (2) Is a wooden floor to the house essential—the cost of this is a big item? Would a hard earth floor with ashes or cinder on top, and then the scratching litter (peat moss or straw), do as well? (3) What month hatched birds are best for laying—not for breeding? You recently wrote, I think, of January and June hatched Leghorns as being the most profitable, but possibly this allowed for breeding from them in their second year. Assuming I stocked the house in two batches, would early April hatched and early May be best, or would you recommend some late January hatched as well? (4) If normally kept in the house, does it do the birds any good to allow them out every day in fine weather (summer only) into a run which would quickly become an earth one? (5) Feeding on dry mash and birds kept as described above, should the hoppers be open all day, or only for certain intervals during the day?"—In answer to my correspondent's first question. In the section 10 ft. x 10 ft. he could keep 25 Leghorns quite well. He must, however, be perfectly sure that he has plenty of perch room, as this is often overlooked. For Leghorns he should allow at least 18 inches per bird perch room. If he has two rows of perches, it is best that they should be 15 inches from centre to centre. I emphasise this because frequently I find in an intensive house that, while there is ample floor space, the birds are crowded at night. (2) A wooden floor is not essential, but I would not advise the use of peat moss; a hard earth floor would answer his purpose, but straw would be much better than the peat moss litter. (3) I think with Leghorns it would be best if he were to hatch them all during April. If not all in April, I should hatch 25 per cent. in early January. This would give him eggs all the year round. (4) I do not think it does birds much good to go outside even in fine weather—summer only—especially when he speaks of a run which would quickly become an earth one. If all the windows are made to open and the birds get their full quota of sunshine, it does not do them much good to run out on the earth. (5) If the birds are fed on a dry mash, the mash hoppers should be always open; a small scratch feed given in the morning, green food at mid-day, and a good heavy feed of grain as the last feed at night.

W. P. (Evesham) says he started poultry-keeping with 100 White Wyandotte chicks last year, with the idea of building up a flock of that variety. He is now thinking of buying 200 day-olds, and it seems to him that the R.I. Red is likely to be a more profitable bird. Will I say which of the two birds I consider the better for producing a good saleable egg and cockerels for table, both of good strain? He is under the impression that the R.I. Red lays few smaller eggs. He has them on free range on heavy clay soil.—Now I will have to be careful or I will bring the admirers of both breeds round my poor head. The average production of the Wyandotte is likely to be higher than the R.I. Red. Size of egg laid by the R.I. Red is superior to that of the Wyandotte on average, but it would be possible for my correspondent to get Wyandottes which lay large eggs; but on heavy clay soil I should prefer the R.I. Red, and, of the two breeds, it is a better table bird, being rather larger than the average utility Wyandotte. That is all I can tell you, "W.P.," and I leave it now to your discretion. As it is I am afraid I have involved myself in trouble, for there is a certain person at home who is a great believer in the Wyandotte. We will hope, however, she will not read these notes.

POST-MORTEMS.

C. C. C. The examination of the viscera showed the trouble to be tubercular peritonitis; the intestines were matted together by adhesions, the messenteric lymphatics caseous, and the serous coat of the caeca covered with miliary tubercles; tubercles were also present on the spleen capsule and in the pulp; the ovary was also extensively affected. The carcase should not, in my opinion, be used for food, the case being one of generalisation. How a bird can maintain its appearance of health when suffering from such extensive lesions, and this is true of other diseases besides T.B., is one of the mysteries of avian pathology, which is seemingly unexplainable. This may, of course, prove to be an isolated case, but this is very doubtful, and I should advise the isolation of this bird's immediate incontacts, and the prompt destruction of any showing symptoms of "going light" or ailing in any way; also the very thorough disinfection of the houses and equipment, and the liming and digging over of the tainted run, before fresh birds are placed therein.

MEMBERSHIP OF THE S.P.B A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.

London Market Advice Table.

By **A. V. CLARKSON.**

JANUARY, 1926.

This being the commencement of a New Year, and as it will be the first attempt of many producers at marketing their produce, I propose making a few general remarks—which I trust will be remembered month by month when the itemised advice is given.

PRODUCERS MUST REMEMBER THAT UPON THE PROPER MARKETING OF THEIR PRODUCE DEPENDS THEIR SUCCESS OR OTHERWISE.

Having sunk their capital in production is one side of the business, but to realise upon that production is another. My advice is given with the sole object of enabling the producer to market his produce in the manner most likely to realise top price for the particular class of produce, and the following details go a long way towards creating successful marketing:—

Never send your produce up and "chance it."

Always enquire first of your salesman, whether the particular thing you have for disposal is wanted, and approximately what price it will realise.

When you get a reply, compare it with your local realisation prices, and, of course, use whichever medium of disposal is to your advantage.

Your salesman should supply you with crates for live birds, carriage paid, but very seldom supplies egg boxes or crates for live turkeys or geese.

If you are sending EGGS be sure your name and address is written inside the lid of your box, because the salesman receives many boxes exactly alike, and if your name is not inside the box it is apt to cause some delay in the return of it.

With regard to sending POULTRY, be sure to do as much grading as possible with regard to size, and never pack LIGHT BREED BIRDS with HEAVY BREEDS, unless you are only making a very small consignment.

Never pack birds that have "gone light," or HENS which are diseased with either "water-belly or stone-belly."

All birds for marketing pay for a week or two in the FATTENING PEN.

It seldom pays to send very small WHITE LEGHORN COCKERELS, because at the best of times they only realise a few pence each, and by the time carriage and commission is deducted the sender is out of pocket.

OLD HENS should always be sent alive, because the largest buyers are the Jews, and their religion demands live birds, but, apart from this, FAT HENS invariably do better alive than dead.

With regard to CHICKEN, it is at the sender's discretion whether he sends the birds alive or dead, but the following facts will enable him to make up his mind:—

Birds sent dead to the London Market should be killed and clean plucked. They should be killed by dislocation of the neck, and only the feathers left on round the neck to cover the place of dislocation. Unless the producer is able to do this properly, it will be better to send the birds alive and leave the salesman to kill and pluck them, which he should do for a charge of 3d. per bird.

By sending alive, the producer is running no risk of his birds deteriorating through either faulty killing, faulty packing, or the effects of hot weather, and the nominal charge of 3d. per bird evades all these risks, and is what it would cost him at his own end.

IF IN ANY DOUBT, EITHER WRITE OR CALL AND SEE YOUR SALESMAN.

MAKE YOURSELF KNOWN, AND SO HAVE THAT CONFIDENCE BETWEEN ONE ANOTHER WHICH MAKES FOR SUCCESS.

National Poultry Institute.

We have received the following report from Professor C. Willard Thompson, Director of the National Poultry Institute. Our readers will, we feel sure, be keenly interested :—

THE DEPARTMENT OF POULTRY HUSBANDRY.

This Department includes all work with the ordinary domestic fowl and turkeys. Approximately twenty acres have been set aside for the development of this side of the Institute's programme, and it is entirely new ground in the sense that poultry has never been raised or kept on it in previous years. When it was taken over, the field was, with the exception of a small corner, down to permanent grass. The site slopes gently and therefore drainage offers no serious problem. The soil is essentially a sandy loam, which is ideal from the poultry raiser's viewpoint, being sanitary and dry, as well as fertile, and capable of maintaining good grass or of producing other crops satisfactorily.

In planning and arranging the poultry plant, constant regard was shown for the necessity of always allowing sufficient range room on which to properly rear each season's new chick crop. Too often the poultry plant is sufficiently laid out for the accommodation of the adult fowls, but is a bit cramped when the great demands of the chick growing season appear.

Of course, it is to be appreciated that the problem of planning and arranging a poultry plant of this kind must depart from the system which might be used in developing a commercial poultry plant of similar size, because of the very nature of the experimental and educational work which is to be accomplished on that plant, but whenever practicable all matters have been developed as near commercial lines and according to strictly economical and practical ideas as was possible.

The poultry plant is divided into nine sections, roughly, for the purpose of convenience.

The first section comprises the Service Building, which is located near the centre of the National Institute of Poultry Husbandry plant, and from which all practical operations over the entire plant will emanate. It will be essentially completed by Christmas time (the frosts of early winter having somewhat delayed brick and concrete work). It will consist of a food storage, food mixing room, power room, carpentry and repair shop, poultry judging laboratory, killing and dressing room (for use of poultry and waterfowl departments), and an isolation hospital. Being built under one roof, these various necessary parts of the farm equipment have been secured at minimum expenditure of original funds, and the same arrangement insures efficiency of labour and service throughout the future.

The actual poultry plant is divided into seven fields, each of which will be known by a letter.

Field A, approximately 200 feet by 200 feet in size, down to permanent grass, is reserved for a " farm flock " demonstration and any experimentation which the future may suggest that may bear upon any phase of the average farm poultry flock. In the centre of this field is located a Farm Poultry House, 25 feet by 25 feet in size, providing accommodation for approximately 150 hens, and the male birds necessary to that size of flock during breeding seasons. The size of flock is such as might be found most practicable and remunerative on many general farms, where some serious attention is to be given to poultry-keeping. The size of yard is sufficient to be maintained, under that particular stocking, as permanent grass, comparable to free range conditions such as would be enjoyed by the average farm flock in having its usual free run of the farm. This unit serves as a perpetual demonstration of the possibilities of the farm poultry flock, and offers a unique and valuable laboratory in which students may study poultry-keeping of that kind. In this unit may be carried various breeds in different years, depending upon circumstances as to what particular fowl may be handled in that unit.

During the coming year 150 White Leghorn hens, all trapnested during their first or pullet year, together with 15 pedigreed cockerels, are to be found in the Farm Poultry House. They are from the former College strain, and are high quality Leghorns. They are to be run through this coming year as a demonstration and study of the possibilities of yearling Leghorns, and at the same time are to provide hatching eggs for the use of the Institute during the coming spring. Special word should be added concerning the 15 cockerels, as they are all sons of a cock bird (being used again this coming season in Pen D14, a special White Leghorn mating), whose dam made an egg record of 299 eggs in her first laying year. These half-brothers are from the special mating of the 1925 season, which included some of the best record Leghorn hens on the College plant. These cockerels are very much alike in appearance. Their use should help tremendously in establishing strain characteristics.

The Farm Poultry House will be presented in detail in this section of the Journal of the National Poultry Institute in due time during this coming year. Similar announcement and description will be made of other poultry buildings erected on the new plant and mentioned in these columns at this time. It will be desired to acquaint poultry-keepers of the country with full information concerning the plant which their generosity has helped so much to bring into being.

Field B, divided into two parts, each to accommodate permanently approximately one hundred hens, is planned to suggest one practical method of housing laying stock on a truly commercial basis, and at a minimum of cost, while securing durability and all the other characteristics which the modern laying house should include. The house, known as House B, occupies the centre of the Field, and, like the Field, is comprised of two pens, each of which is 20 feet by 20 feet in size, furnishing four hundred square feet of floor space and accommodation for the unit of one hundred fowls. It is a Multiple Unit Laying House in idea. The House B consists of two units. The same type might be extended almost indefinitely to include many pens or units.

This house contains one flock of trapnested White Wyandotte hens, with pedigreed cockerels, and one flock of trapnested Rhode Island Red hens, with pedigreed cockerels, both flocks being mass matings for the production of hatching eggs during the coming season. Both flocks are being managed along commercial poultry farm lines by students under supervision of staff members.

In future years many types of experimental projects may be carried on in this house. Its various somewhat new suggestions have already drawn the attention of many English poultry-keepers, and it is being copied by at least one large poultry farm at this time.

Field C, located near the centre or heart of the poultry farm proper, is called the Male Bird House, being a building of some 85 feet in length by 14 feet in width. It contains, at one end, the Egg Room for the entire plant. The balance of the building consists of thirty small pens, each 5 feet by 5 feet in size, arranged on either side of a central alley, and opening into it. This building will have many and varied uses on the Experimental Farm, ranging from a suitable place in which proven males may be properly carried from one season to the next, to use for small experimental matings during spring months, and possibly to housing of early hatches of chicks with hens, ducklings, goslings, or young turkeys, and many other uses. Each pen is accompanied by an individual yard directly outside, each 5 feet by 25 feet in size. This part of the plant is compact and convenient, and has already proven its worth.

Field D, comprising 28 small yards, each approximately 40 by 60 feet in size, is set aside for the accommodation of the special matings which will be necessitated each year by the demands of the Institute projects for an ever-improving quality of stock with which to undertake the problems at hand. This section will also house exhibitions of interesting new varieties of fowls, special flocks of types and breeds not found in the larger sections of the plant, which will be necessary particularly for student work. The accompanying pens to these yards are arranged in pairs, each breeding house consisting of two pens, and each house being 10 feet by 6 feet in size. Each pen accommodates one male bird and his mating of from six to ten hens, as the case may be. This series of pens can be used in a multitude of ways as years go by, and changing conditions may alter the type of work undertaken. Ideal conditions for breeding stock are afforded by this section of the plant.

The Institute staff is especially gratified with the make-up of the special matings for the 1926 season, all of which were in readiness on November 1st. The following list of assignments indicates the stock at hand for Institute work this year. In practically every instance trapnest records are at hand for females used and pedigreed for sires used. The anticipated needs of the Institute a year hence have been the guiding factors in the assignment of special matings at this time. Students, under guidance, care for these flocks. The stock is as follows:

Pens D1—D4 inclusive White Wyandottes. D4a, D4b special cross-mating in inheritance studies. D5—D8 inclusive Light Sussex. D.10—D13 inclusive Rhode Island Red. D14—D17 inclusive Single Comb White Leghorn. D9, D18 both Buff Plymouth Rock. D19 S.C. Brown Leghorn. D20, D21 both Barred Plymouth Rock. D22 experimental cross-mating. D25 Jersey Black Giant. D24, D25 both S.C. Black Leghorn. D26 Blue Andalusian.

Field E is reserved for the Experimental Long Brooder House, and its accompanying outer yards, wherein all brooding for the Institute will be done each season, and wherein numerous experimental projects concerning baby chicks may be carried on in the future. There are ten pens in this house, each 10 ft. by 12 ft., and there is an alley extending along the rear side of the house. Each pen is planned for chick flocks up to 250. All partitions are movable, and thus any size of unit may be made for special experiments. The same movable partitions will render the brooder house useful during the entire year, for the many sided activities of the Experimental Farm. The design of this brooder house will be given in detail in due time, and particular attention will be directed to its simplicity and efficiency. It is nearing completion at this writing, and will be ready for the early hatches of January and February.

Field F consists of a Long Laying House, containing ten pens, each 14 feet deep by 12 feet wide. The building is 124 feet long, there being a small workroom at one end. In this pen, during this present year, various flocks of pullets are being carried under strictly commercial conditions, all fowls being trapnested and recorded. This house is a student laboratory in poultry flock management, each student being responsible for the entire care of one pen for the whole year, and is directly responsible to the Director. It is a case of learning by doing, and is proving to be valuable as a means of instruction.

House F is surrounded with a double yarding system. The fowls in it for this year are forty pullets each of the following varieties:—

1, 4 Light Sussex.
3 Rhode Island Red.
2, 5, 7, 9 White Wyandotte.
6 Barred Plymouth Rock (18). Jersey Black Giant (17).
8, 10 Cross-bred experimental.

Field G, the eighth section of the plant, is exactly similar to Field F, being another ten-pen long laying house, especially set aside for experimental work involving several uniform flocks. During the present year an extensive study of rations and feeding methods is being carried on in this house, announcement of which will be made in these columns and in the press when it is considered sufficiently under weigh to warrant announcement without running the risk of being premature in the same.

House G comprises ten flocks of White Leghorn pullets, forty in each lot, all trapnested and recorded.

Field R consists of the young stock ranges of over twelve acres of grass land. There are twelve National Poultry Institute Colony Houses, and eight smaller colony houses on wheels at present ready for the next growing season. Carrying out the idea of using the first named throughout the year, six of these colony houses are in use this winter as laying houses, as follows:

R1 Light Sussex.
R2, R3 Black Leghorn.
R4—R6 White Leghorn.

WATER FOWL DEPARTMENT.

In this directory just fleeting mention will enumerate the total stock on hand, leaving for a future article fuller report on work under weigh in this department.

The long duck shed houses six laying flocks of approximately fifty ducks each. Two flocks of each of three breeds are at hand, including White Indian Runner, Khaki-Campbell, and Buff Orpington. Two breeding pens of each variety are also at hand, consisting of eight ducks each.

Directory of other departments will be furnished later.

WYE COLLEGE COUNTIES' LAYING TRIALS, 1925-26.

(KENT C.C. and SURREY C.C.), held at the South-Eastern Agricultural College, Wye, Kent.

Report for Second Period—12th November to 9th December).

The second period of four weeks has been marked by very severe weather conditions, there having been nearly three weeks of intense cold and frost, with quite heavy falls of snow. The birds, however, responded to alterations made in routine and feeding to meet the change in climatic conditions and increased egg production over the first period by 180 eggs. The number of eggs produced during the period was 3,108, making a total to date of 6,036.

Figures are Eggs and Points respectively.

KENT.

White Leghorns.—Dr. Harbord, 168, 1849; Mr. H. S. Godsmark, 110, 1238

White Wyandottes.—Messrs. F. and T. Neame, 188, 2061; Mr. H. M. Moore. 170, 1932.

Rhode Island Reds.—Miss Jones and Miss Atkins, 160, 1719; Mr P. . Hills, 158, 1634.

Light Sussex.—Mrs. M. Crookes, 154, 1587. Dr. Harbord, 155, 1561

A.O.V. (Sitting Breed).—Campkin Bros., 133, 1387; Mrs. M. Crookes, 77, 890.

SURREY.

White Leghorns.—Mr. J. B. Bantoft, 190, 2016; Lady Lugard, 169, 1826.

White Wyandottes.—Mr. H. J. Willis, 204, 2167; Mr. D. Rowntree, 207, 2046.

Rhode Island Reds.—Mr. A. Brown, 165, 1776; Mr. A. Kirsch, 141, 1545.

Light Sussex.—Miss E. M. McGaw, 132, 1432; Mr. W. H. Homewood, 121, 1272.

LANCASHIRE FEDERATION OF UTILITY SOCIETIES' LAYING COMPETITION.

The birds are doing well, having laid nearly 200 eggs more this month than in the corresponding period last year from the same number of birds, several birds that were laying when they arrived have gone into a partial moult. Will competitors please note that the County Council Farm is closed to visitors on account of the foot and mouth disease until further notice. Winners of the Monthly Ribbons for best pen in each section are:—Messrs. R Greesley. J. P. Willacy, Dr. J. E. Helm, and T. B. Grice. Winners of Monthly Ribbons for best bird in each section:—Messrs. R Beesley, J. Ashworth, G. H. L. Armstrong, C. Bates, J. W. Halstead, and T. Plumb.

Second Month's Report—12th November to 9th December, 1925.

The following are the leading positions in each section showing number of Eggs and Points respectively:—

Section 1. White Leghorns. Large Breeders (Three Birds).—A. Heap, 120, 706; H. Cook, 101, 661; G. H. L. Armstrong, 86, 648.

Section 2. Black Leghorns and Anconas. Large Breeders (Three Birds).—F. C. Tomlinson, 60, 479. J. P. Willacy, 66, 460; J. Ashworth, 51, 524.

Section 3. White Wyandottes. Large Breeders (Three Birds).—H. Sutton and Sons, 110, 812; Dr. J. E. Helm, 113, 800; J. Rainford 93. 798.

Section 4. Rhode Island Reds and A.O.V. Heavy. Large Breeders (Three Birds).—R. Moon and Sons, 97, 780; T. B. Grice, 94, 758; J. Basnett, 100, 734.

Section 5 Light Breeds, Small Breeders (Single Birds).—J. W. Halstead, 39, 312; J. W. Makant, 33, 258; J. Thwaites, 31, 221.

Section 6. Heavy Breeds, Small Breeders (Single Birds).—C. Hargreaves, 39, 252; A. D. Walton, 38, 248. J. W. Pearson, 37, 222.

Scientific Poultry Breeders' Association.

FOOD PURCHASE SCHEME.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail:—

Fish Meal (Pure White)	**20/0**	**F.O.R.**	**London.**
,, ,, ,, ,,	**20/0**	**F.O.R.**	**Bristol.**
,, ,, ,, ,,	**19/0**	**F.O.R.**	**Swansea.**
,, ,, ,, ,,	**19/0**	**F.O.R.**	**Tynemouth.**
,, ,, ,, ,,	**19/9**	**F.O.R.**	**Grimsby.**
,, ,, ,, ,,	**18/3**	**F.O.R.**	**Bradford**

PRICES OF MASHES, PER CWT.

	Layers	Growers	Breeders	Chicks
F.O.R. LIVERPOOL ...	**11/9**	**11/9**	**12/0**	**12/6**
F.O.R. LIVERPOOL ...	**12/0**	**12/3**	**13/6**	**13/6**
F.O.R. LONDON	**11/6**	**11/6**	**12/6**	**12/9**
F.O.R. LEITH	**11/3**	**11/3**	**12/3**	**13/0**
F.O.R. LEICESTER	**11/6**	**11/6**	**12/3**	**12/9**
F.O.R. GREENOCK ...	**12/3**	**12/6**	**13/3**	**13/9**
F.O.R. KING'S LYNN ...	**11/3**	**11/3**	**11/6**	**12/9**
F.O.R. BELFAST	**13/0**	**12/6**	**13/0**	**13/9**
F.O.R. BRISTOL	**11/9**	**11/9**	**12/9**	**13/3**
F.O.R. SOUTHAMPTON ...	**11/9**	**12/0**	**12/3**	**11/6**
F.O.R. PLYMOUTH ...	**12/9**	**13/0**	**12/9**	**14/6**
F.O.R. ABERDEEN	**12/9**	**11/9**	**13/9**	**13/9**
F.O.R. HARROGATE ...	**12/9**	**12/6**	**13/6**	**14/0**
F.O.R. GLASGOW	**12/3**	**12/3**	**12/9**	**12/9**
F.O R. STAFFS	**11/6**	**11/6**	**12/9**	**12/6**
F.O.R. IPSWICH	**11/6**	**12/9**	**12/9**	**14/0**
F.O.R. SUSSEX	**11/6**	**11/6**	**12/6**	**12/6**

		Per Cwt.
MAIZE GRITS ...	**F.O.R. LONDON ... ...**	**12 3**
MAIZE GRITS ...	**F.O.R. IPSWICH ... ...**	**12 3**
S.G. OATS	**F.O.R. LONDON ... ...**	**13 6**
S.G. OATS	**F.O.R. SUSSEX ... ...**	**12 6**
S.G. OATS	**F.O.R. BRISTOL ... ...**	**13 3**
MEAT & BONE MEAL	**F.O.R. LONDON ... ...**	**13 9**
MEAT MEAL	**F.O.R. LONDON ... ...**	**14 3**
MAIZE GERM MEAL	**F.O.R. LONDON ... ...**	**10 6**
MAIZE GERM MEAL	**F.O.R. IPSWICH ... ...**	**10 6**
MEAT & BONE MEAL	**Carriage Paid ... ...**	**15 3**
MEAT MEAL	**Carriage Paid ... ...**	**16 9**

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

A further step in the advancement of the Food Scheme has been made, and we can now offer the following articles in 1 cwt. lots, Carriage Paid, to all members in Sussex, Surrey, Hampshire, and Kent:—

LAYERS' MASH	**13/0 per cwt.**
BREEDERS' MASH	**13/6 per cwt.**
GROWERS' MASH	**12/9 per cwt.**
CHICK MASH	**15/9 per cwt.**
SUSSEX GROUND OATS	**14/6 per cwt.**

These cannot at present be supplied to counties other than those mentioned above.

WEST SURREY POULTRY SOCIETY, LTD.
WINTER LAYING TEST, 1925-26.
REPORT FOR THIRD MONTH.

With two exceptions the health of the test birds has continued good. One pullet in Pen 27 died suddenly during the last week, and a bird in Pen 26 is suffering from a slight cold. Otherwise all the birds are in good condition.

One Light Sussex has been broody (this being the only case since the test started). In all 34 birds have been in moult, most of them slight cases. Five birds still have laid no eggs.

The total eggs for the third period was 1,226 (9.58 per bird). making a total of 3,783 (29.55 per bird) to date. The number of second grade eggs continues inordinately high, thirteen pens having exceeded the limit in this grade. This forfeiture may make considerable alterations in the positions of the leading pens during the next four weeks. Mr. Ezzard has this month lost his lead in the R.I.R. class, and Messrs. Hood and Sons' second pen have outstripped their sisters in the Black Leghorns; there are several alterations in second positions also.

Mr. Reakes' Sussex No. 72 obtains the award for most first grade eggs in the third period, with 21 eggs all first grade; Capt. Britts' Wyandotte No. 2 being second with 18.

REPORT FOR THE 3rd MONTH (4 weeks), Nov. 30th to Dec. 28th.

Figures are Total Eggs and Points to date respectively:—

White Wyandotte.—1, Capt. M. H. G. Britts (b), 178, 140; 2, Capt. M. H. G. Britts (a). 132, 132; 3, Burrows Lea P. Farm, 140, 115; 4, H. Rowntree (b), 110, 110; 5, H. Rowntree (a), 102, 98; 6, A. Stewart Buckle, 98, 97.

Rhode Island Red.—1, H. W. Homewood, 150, 117; 2, W. Ezzard, 141, 93.

Light Sussex.—1, Sir J. Leigh, 153, 131; 2, Burrows Lea P. Farm, 193, 109; 3, G. R. Reakes, 111, 109.

A.O.V. (Heavy).—Class cancelled.

White Leghorn.—1, W. Ezzard, 155, 155; 2, Mrs. C. R. Harding, 124, 121; 3, Sir J. Leigh, 116, 80; 4, Burrows Lea P. Farm, 140, 77; 5, H. G. Hood and Sons, 136, 75.

Black Leghorn.—1, H. G. Hood and Sons (b), 119, 116; 2, H. G. Hood and Sons (a), 100, 99; 3, H. Rowntree, 119, 81.

Each pen consists of four pullets.

THE LANCASHIRE UTILITY POULTRY SOCIETY.

INTERNATIONAL EGG-LAYING TEST, 1925-6

Second Month's Report—16th November to 13th December, 1925.

The second month's report shows a very satisfactory average considering the severe weather we have had during this period. The health of the birds is all that could be desired, and several birds which were moulting have commenced to lay.

The Society has several new schemes they intend putting into operation. Commencing next month, a full menu will be printed on the Laying Test Report, showing the dry and wet mashes used at the test, with the amount of each ingredient, also each proportion of grain mixture used.

The Society has taken up an insurance agency with a good Insurance Company, and we solicit enquiries from our members who wish to insure their incubators, brooders, and buildings; in fact, we are prepared to take insurance policies out for all farm buildings, including live stock, etc.

The premium for incubator houses, incubators, brooder houses,, stores, and chickens, etc., is from 10s. 6d. per cent—that is from 10s. 6d. for every £100 insured. Now is the time to be prepared for the chicken season, and members are asked to insure through the society, as the low premum cannot be beaten. Premiums on other farm buildings are much smaller.

SUMMARY OF LEADING PENS.

Figures are Eggs for Month and Total Eggs to date respectively.

Large Breeders. Section 1.—Miss A. Paul, Blairgowrie, 165, 313; I. B. Gow, Cobham, 150, 277; F. Snowden, Cowling, 144, 291.

Large Breeders. Section 2.—R. Rodwell, Nelson, 118, 276; F. Snowden, Cowling, 133, 234; G. Mart, Euxton, 89, 183.

Large Breeders. Section 3.—E. Yates, Penwortham, 187, 363; C. Bates, Samlesbury, 159, 336; J. Potter, Wigan, 173, 337.

Large Breeders. Section 4.—F. Harvey, Bretherton, 168, 322; R. Rodwell, Nelson, 152, 330; J. R. Welsh, Bewdley, 164, 273.

Large Breeders. Section 5.—F. B. Evers-Swindell, Ruthin, 82, 174; J. W. Purdie, Lanark, 84, 160; H. Seddon, Holmfirth, 75, 149.

Small Breeders. Section 6.—R. W. Hully, Clifton, Manchester, 48 114; W. Ashcroft, Tarleton, 18, 82; Mrs. M. B. Clay, Long Preston, 52, 72.

Small Breeders. Section 7.—Dr. J. E. Helm, Rosendale, 103, 209; S. and T. Greenall, Grantham, 57, 160; J. and W. Purdie, Lanark, 75, 166.

Small Breeders. Section 8.——. Rawcliffe, Barton, 69, 152; R. Hodkinson, Culcheth, 82, 145; Col. S. Sandbach, Abergele, 59, 132.

Single Bird. Section 9. Light.—A. V. Wallis, Oxford, 16, 33; W. Golden, Rugby, 22, 43; W. Rogers, Market Drayton, 19, 38.

Single Bird. Section 10. Heavy.—P. G. Espinasse, Oxon, 15, 40; Black Lake P F., Egham, 20, 41; J. Rainford, Penwortham, 20, 34.

Juvenile Breeders. Section 11. Light.—Miss W. Banks, Freckleton, 46, 120; Miss E. Barron, Catforth, 49, 83; Jos. Collinson, Garstang, 45, 76.

Juvenile Breeders. Section 12. Heavy.—Miss E Barron, Catforth, 89 177; R Gabbott, Little Hoole, 75, 163; Miss M. A. Walker, Hothersall, 79, 155.

Correspondence.

POULTRY FARMING IN FLORIDA.

To the Editor of "Eggs."

It was with much interest that I went round a poultry farm, which is situated not far from the house, where I am spending the winter with my friends here.

This farm, which has been started by a Mr. Carrell only three years ago, has at present about 1,500 layers, most of which are White Leghorns, and about 300 are Anconas.

The conditions of poultry farming here, as compared to the same in Scotland, where I do my bit of work, are in every respect more favourable.

To begin with, the housing of poultry is quite simple. Mr. Carrell builds himself the sheds, which are 11 ft. x 11 ft.; the yard attached is 24 ft. x 44 ft. The sides of the sheds are wired, and contain perches and dropping boards. Under the latter there is a row of ten nests on each side.

The idea of the construction of these sheds is to admit as much air and sunshine as possible.

Every units holds 100 layers. On the snaps are seen a row of sheds (front and back). The cost of the shed is 35.00 dollars. For rearing he uses a brooder house 12 ft. x 16 ft., with a blue-flame hover, 52 in. canopy, holding 300 chicks. The cost of the brooder house is 40.00 dollars, the hover 12.00 dollars.

Front view of a row of sheds.

Up to the present he has renewed 1/3rd of his stock every year. The management of layers on the whole is the same, as with us. On account of the shortage of green food he feeds them in the morning with sprouted oats, which he prepares in wooden trays and leaves them in the open, only covering them with the sacks.

Dry mash hoppers are open all day. The standard mash of Mr. Carrell consists of 75 lbs. meat scraps, 50 lbs. dried butter milk, 100 lbs. alfalfa leaf flour, 100 lbs. shorts, 150 lbs. maize meal, 100 lbs. bran, 1 per cent. charcoal, ½ per cent. salt.

Grain feed.—Summer: One part of Indian corn to one of wheat; Winter: Two parts corn to one wheat.

Back view of a row of sheds.

For growing pullets as well as for moulters he adds some linseed and bone meal.

The general health of the flocks is excellent. The heat does not seem to affect the production of layers.

The only enemies during the rearing season are hawks. Occasionally they have Skunks, but those are kept out by the wire netting.

The market is excellent. The hotels are buying everything produced on the farm. 2 lb. White Leghorn cockerels are bought at once, and any amount of them (*sic*!).

The average price per doz. eggs is 0.43 dollars; the lowest, 0.30 dollars; winter eggs touch 1.00 dollars.

Railway charges are lower than with us.

Excellent journals are published, which evidently keep in touch with ours, as I understood from Mr. Carrell, when he mentioned that somewhere in Sussex a special experimental farm is going to be established. He is keenly looking forward to see the results of these experiments.

I think I recognise in this rumour the S.P.B.A. experimental farm.

May I conclude my letter with wishing you every success with the S.P.B.A. farm. Results of the work there, I am sure, will benefit not only poultry farmers at home, but also our friends across here.

VICTOR BLOCHIN.

Lake Alfred, Florida, U.S.A.

The Midland Poultry Festival.

For the first time in its history the S.P.B.A. had a Stand at the Midland Poultry Festival, and so gratified were we with results that I am confident that the Council will want very little persuasion to repeat the experiment next year.

The Festival was opened on the morning of the seventh by the Lord Mayor, supported by Mr. P. Hannon, M.P.

The attendance on the first day was excellent, and there was much to attract visitors. One must heartily congratulate Mr. Brain and the officials for the splendid way in which the Festival was organised, and may I pay a little tribute to the courtesy received from all hands. Every possible assistance was given to exhibitors and standholders, a very marked difference to the treatment with which one meets from responsible officials of **some** of the other shows.

Complaints have been rife at the lack of attractions at some of the bigger shows. One cannot complain on this score at the Midland. Indeed, if one was tired of walking round the show, there was diversion to be found somewhere. Throughout the day there were lectures by well-known experts. The Ministry of Agriculture lent its film for the occasion, and this proved of great attraction.

The Poultry Commissioner, Mr. P. A. Francis, opened the show on the second day, and spoke to a highly-interested audience on his experiences in America, Belgium and Denmark. Then Professor Willard Thompson took up the tale, while among other speakers were Mr. Powell-Owen, Mr. A. H. Brownson, Mr. J. H. Dowden, Mr. Brain, Mr. E. Collier, and Mr. Caseby.

Apart from the poultry exhibits we found much to interest us on the various stands. Appliance makers are making every effort to bring out new and original ideas. No one can accuse them of conservatism, and it was especially encouraging to see the interest which they are taking in the better ventilation of poultry houses, and in brooders and hovers, not to speak of artificial incubation. One particular machine appealed to me very strongly. The design and construction of houses was a marvellous advance on the ideas of a few years ago.

We had many visitors to our stand, the keenest interest was taken in the Food Scheme, and the quality of the samples exhibited and the low prices was the subject of much comment. One visitor remarked, **"The S.P.B.A. has killed the dear food ramp. Who is going to pay 20/- or more for a cwt. when we know it can be produced for 11/-?"**

A very large number of visitors to the stand appealed to us to supply them, as small poultrykeepers, in lots of one cwt. For some time past I have been trying to make arrangements to this end, and now I can definitely say **that it will be done,** and I hope to be able to make a definite announcement within the next fortnight or three weeks. Several very large wholesale firms have intimated their willingness to co-operate with us.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

Owen, Capt. A., The Malna Fruit and P.F., Brands Hill, Colnbrook, Bucks.
Bond, Miss R. G., Cottishall, Norwich.
Northfield, Lieut. W. B., Twyford House, March, Cambs.
Gibson, Mrs. C., Holdersgarth, Holders Hill Road, Hendon, N.W.4.
Saunders, Major C. G., Castlenau, Tarring Road, Worthing.
Raper, G. B., 51, King Street, Thorne, Doncaster.
Ormsby, M. H., Halfway Manor, Kintbury, Berks.
Corlett, J. T., The Gronk, Andreas, I.O. Man.
Hortop, Mrs. H. A., Smallridge, Axminster.
Wightman, J., Annesley Woodhouse, near Nottingham.
Newton, H., Dunstan House, Lowdham, Notts.
Leach, F., M.B.E., Brooklyn, East Oakley, Basingstoke, Hants.
Palethorpe, N., Little Slades, Cleeve Hill, Glos.
Martin, Mrs. M., Pleasure Farm, Diss, Norfolk.
Brown, Miss C., The Priory P.F., near Newnham, Glos.
Ramsden, A., 24, Victor Terrace, Manningham, Bradford.
Richards, H. R., 9, Manor Road, Brockley, London, S.E.4.
Mutimer, Mrs. E., Hill House, Tibenham, Norwich.
Pape, Mrs. H. R., Heath Lodge, Newmarket.
Westcott, C., Porlock, Somerset.
Mudge, Capt. J. B., The Peak, Chardstock, Dévon.
Hellewell, C., 68, Common Lane, East Ardsley, near Wakefield, Yorks.
Burrell, Sir Merrik R., Bart., C.B.E., Knepp Castle, Horsham, Sussex.
Allsopp, E. W., "The Willows," Fleckney, Leicester.
March, Mrs. M., The Hermitage, Tower Hill, Horsham.
Swallow W., 62, Common Lane, East Ardsley, near Wakefield.
Hicks-Beach, Lady S., Coln-St.-Aldwyn, Fairford, Glos.
Towning, E. A., Ferne Bressane, Frans (Ain.), France.
Brettle, S. H., South Woodham, Chelmsford, Essex.
Roads, Mrs. S., Swanborne, Winslow, Bucks
Jameson, W., Norton P.F., Norton Lane, Earlswood, near Birmingham.
Wheeler, W. J., "Willowcroft," Nazeing Road, Broxbourne, Herts.
Poyntz, Stewart, Mrs. C., Chesfield Park, Stevenage, Herts.
Feldt, H. G., "Paragon" Four Marks, Alton, Hants.
Case, W. H., Gately Manor, Elmham, Norfolk.
Duxbury, N., Beechfield, Bury, Lancs.
Carter, E. J., The Oakes P.F., Settle, Yorks.
Bevee, E. L., Fairmount Costessy, Norwich.
West, W. E., 38, Carlton Road, Smallshaw, Ashton-under-Lyne.
Campbell, A. P., Dunamanagh, co. Tyrone.
Paterson, J., Westbank, Longforgan, Dundee.
Speakman, W. A., 23, Common Lane, off Plank Lane, Leigh, Lancs
Tomey, A. F., Littlewood Green P.F., Studley, Warwickshire.
Deakin, W., Church Lane Farm, Goldenhill, Stoke-on-Trent.
Murray, Mrs., Nynehead, Austen Way, Gerrards Cross, Bucks.
Allsop, W. E., 148, Leam Terrace, Leamington Spa, Warwickshire.
Crawshay, T. R., Bushy Nook, Park Road, Teddington.
Bruce, Mrs. E., West Pitt House, South Benwell, Newcastle-on-Tyne.
Rothwell, J. E., Brumebank P.F., Bishopsbriggs, near Glasgow.
Jump, W., 96, Gray Street, Broughty Ferry, Forfarshire.
Lea, Arthur H., The Lodge Utility P.F., Rockingham Road, Kettering, Northants.
King, Duncan, "Trows House," Lesmahagow, Lanarkshire, Scotland.
Bradshaw, Wm., The Bungalow, Norden, Rishton, near Blackburn.
Houghton, G. S., Westbrook, Madeley Road, Madeley, near Crewe
Smeeton, H., South Clifton, Newark, Notts.
Gower, A. (Poultryman), Caerllo, Abergele, N. Wales.
James, F. A., "St. Stephen," Chalfont St. Peter, Bucks.
Dufosee, H. A., Park P.F., Brislington, near Bristol.
Foster, B. Le Neve-, The Obelisk, Knutsford.
Morgans, W., Holly Barn, Llandrindod Wells.
Smith, J. H. (Junr.), Blossom Hill Cottage, Allenheads, Northumberland.
Maynard, Miss R., Clavering, near Newport, Essex.
Slayden, J., Flushing Farm, Great Bookham, Surrey.
Leventon, E. A., Woolsthorpe-by-Belvoir, Grantham.
Dean, O. S., 29, Main Street, Egremont, Cumberland.
Allison, R., Glebe Farm, Sutton Bonington, Loughborough, Notts
Kershaw, J., Ackroyd, Jill Lane, Northorpe, Mirfield, Yorks.
Clark, S., Churchleigh P.F., Ram Hill, Coalpit Heath, Glos.
Scott, W. J., "Avonlea," Culmore, Londonderry, N.I.
Davies, E. P., Pen-y-Bryn, Newport, Salop.
Daintree, A. J., Maple P.F., Dane Bridge, Much Hadham, Herts.
Foster, Mrs. G. E., Little Henham P.F., Widdington, Essex.
Heath, H. C., "Avening," Lechampton, Cheltenham.
Fisher Brown, Miss M., Wire Mill, Lingfield, Surrey.
Simpson, Miss G. E., Kinross, Horeham Road, East Sussex.
Widdicombe, Capt. E. H., The Rosary, Long Lane, Hillingdon, Middlesex.
Clough, J., The Nag's Head, Fixby, Huddersfield, Yorks.
McTadzean, Wm., Laigh Mains, Beith
Christie, K. F., High Croft P.F., Layham, Hadleigh, Suffolk.
Gray, W., Nunnington, York.

WYE COLLEGE DUCK LAYING TRIALS, 1925-26.

Held at the South-Eastern Agricultural College, Wye, Kent, in conjunction with the N.U.P.S. and U.D.C.

These trials commenced on November 1st, 1925, and extend over a period of 48 weeks. Each entry consists of five ducks (1925 bred), of which there are 145 in all. All the ducks are trap-nested, and are run as one large flock on free range over grass land.

For the purpose of awards the birds are divided int two sections, viz.:—(a) Khaki-Campbell, and (b) Indian Runners.

Report for Second Period—November 29th to December 26th, 1925.

The weather conditions during this period have been the worst experienced since these trials have been conducted here. Three weeks of hard frost and snow combined, with cold winds, have reduced the egg output considerably. The number of eggs laid during the month has been 794 as compared with 1,060 during the first period. The average per bird for the month has been 5.47 eggs, which brings the average to date to 12.73 eggs.

The leading position in the whole of the trials is held by Mr. G. H. H. Simmon's Khaki-Campbell's Pen No. 6 which has made a score to date of 170 first-grade eggs.

The leading pens in the Breed Sections are:—

Khaki-Campbells.—Mr. G. H. H. Simmon's Pen No. 6, 170 pts.; Mr. E. W. Putnam's Pen No. 5, 135; Mr. A. N. Dickson's Pen No. 17, 129.

Indian Runners.—Mr. C. Powell's Pen No. 25 (F. and W.), 127 pts.; Miss Harrison Bell's Pen No. 26 (W.), 125; Messrs. R. A. and A. M. Johnson's Pen No. 28 (W.), 89.

"DAILY MAIL" EGG LAYING TEST, 1925-26.

Promoted by "The Daily Mail" in conjunction with London and North Eastern Railway Co., held at Bentley, Suffolk.

Report for Second Month—16th November to 13th December, 1925.

The weather throughout the second period of four weeks was unfavourable to egg production, and severe frosts, with heavy falls of snow which lay on the ground for many days, were experienced.

Production by the second season hens, both pure bred and first crosses, was most seriously affected, though the latter did slightly better than the pure breds—5.93 eggs per bird, as compared with 4.64 by the pure-bred hens. The first cross pullets on the other hand did well, with an average of 13.26 eggs per bird.

The size of the eggs laid by the second season hens was extremely good—the percentage below the 2oz. standard being only 3.1 per cent., and in shape, texture of shell and general character they were all that could be desired.

With the exception of one pen of hens the health of all the birds was very good, and with an improvement in the weather conditions a rapid rise in the production of the hens may be expected. The pure-bred hens are now mated up with cockerels of a different breed or variety, and arrangements are being made for hatching and rearing a limited number of chicks from each mating in accordance with the scheme of the test.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs and Points to date respectively.

Section 1. Leghorns, Any Variety (7 Hens).—Balsham Manor F., Cambridge, 156,145; Johnson, R. A. and A. M., Cotswold Poultry Farm, Chalford, Glos., 141, 135; Burrows Lea Poultry Farm, Shere, Surrey, 108, 108; Elvedon, C.B., C.M.G., M.P., Viscount, Old Woking, Surrey, 106, 105.

Section 2. Wyandottes Any Variety (Seven Hens).—Alexander, A. K. Spiers, Roughton, via Norwich, 149, 148; Snowden, Frank, Cowling, Keighley, 127, 127; Barley, H. D, Kings Norton, Birmingham, 116, 115; Hughes, A., Malpas, Cheshire, 101, 100.

Section 3. Rhode Island Reds or Light Sussex (Seven Hens).—Williams, Major G. T., Perranwell, Cornwall, 129 129; Beer, Edward, Hadleigh, Suffolk, 101, 98; Wolryche-Whitmore, B. A., Ufford Hall, Stamford, 93, 90; Tilley and Webb(Basildon, Essex, 80, 76.

Section 4. Any Other Breed (Seven Hens).—Ward-Jackson, Mrs., Kinngsland, Herefordshire, 83, 71; Brown, Oscar C., Scunthorpe, Lincs., 77, 66; Hamnett, Wm., Myrtle Poultry Farm, Blackpool, 60, 60; Mackenzie, Capt. H. C., Eddington, Herne Bay, 49, 49.

Section 5. First Cross Hens competed in "Daily Mail" Test, 1924-25 (Seven Birds).—White, P. E., Market Drayton, Salop, 180, 171 Sutton and Sons, H., Little Hoole, Preston, 118, 113; Smith, Sydney, Clifton, Nottingham, 110, 110, Rogers, Warwick, Market Drayton, Salop, 80, 77.

Section 6. Any First Cross (Seven Pullets).—H.R.H. The Prince of Wales, Duchy of Cornwall Farm, 242, 239; Mansell, A., Kingston Stert, Thame, 225, 171, Barron, Tom, Catforth, Preston, 216, 164; Smith, Mrs. Ida M., Lutton, Oundle, Peterboro', 196, 153; Brawn, M. A., J. A., Shire Oak Hill, Walsall, 146, 146.

SIXTH MIDLAND TEST REPORT.

Scores up to Second Month (56 days), ending Dec. 27th, inclusive.

White Leghorn Section.—Wilson Beattie, Northampton, 126 pts.; J. Hampton, Bolton, 120; A. Pickard, Chilvers-Coton, 117.

White Wyandottes Section.—Mrs. Seed, Langridge, 146 pts.; Rev. Blight, Chard, 140; L. E. Townson, St. Albans, 137.

Rhode Island Section.—Miss Gibson, Wolverhampton, 132 pts.; F. T. Lamb, 124; G. T. Ward, Alvechurch, 117.

Light Sussex Section.—Wilson Beattie, Northampton, 80 pts.; F. R. Welch, Bewdley, 79; Viscountess Cobham, Alvechurch, 60.

Any Other Variety, Heavy Breed Section.—S. Brooksbank, Hedon, 72 pts.; J. Martin, Bolton, 68; W. Hamnett, Blackpool, 55.

Single Birds' Section, Light Breeds.—H. Armitage, Golcar (W.L.), 26 pts.; Mrs. Font, Willeton (Anc.), 22; P. Laws, Lowestoft (W.L), 21.

Single Birds, Heavy Breeds.—F. Nichells, Alvechurch (W.W.), 35 pts.; C. W. Cracknell, King's Norton (W.W.), 30; B. Allbutt, Bromsgrove (W.W.), 29.

THE YORKSHIRE FEDERATION LAYING TEST, LTD.

Report for the Second Month—17th Nov. to 14th Dec., 1925.

The period just ended has been a very trying one, both for the birds and their attendants; severe frosts have prevailed during the whole period, with the exception of two days when there was sunshine. The birds and staff took full advantage of this brief change in the weather. The watering of the flock has been a problem, because the frost was so severe that the water froze in 15 to 30 minutes after being put into the troughs. To prevent this the staff had to keep a constant supply of warm water before the birds.

Despite these very trying conditions the production of eggs has been very satisfactory, and the steady weekly increase has been maintained. This is shown by the weekly totals of eggs collected: 5th week, 1568; 6th week, 1657; 7th week, 1741; 8th week, 1909. The greatest number of eggs collected in one day was 286, and the smallest 224.

Birds are still coming into lay, daily, and all pens are contributing now to the egg-basket.

There are still a few birds with colds, due to the weather, but the majority of them are yielding to treatment. Some birds are still in the moult, and three have been broody.

The pens of birds, and single birds, leading at present, with their records and with the names of the cups for which they are competing are given below.

For the **"Daily Dispatch" Gold Challenge Cup** for the pen in Classes A. or B which prduces the highest average per bird.—Sutton and Sons, Preston (W.W.), 11s. 9d.; R. Rodwiel, Nelson (B L.), 10s. 3d; G. W. Sutcliffe, Hebden Bridge, (W.L.), 9s. 8d.

The **"Miss Delaney" Silver Challenge Cup** for the best bird in the Test, and the "Daily Dispatch" Prizes of 12 guineas, seven guineas, and five guines for the best three birds in the test.—The Marchioness of Graham, Brodrick (R.I.R.), 43 eggs; G. H. Rayner, Grantham (W.W.), 42; Dr. J. E. Helm(Waterfoot, Lancs. (W.W.), 45.

The **"Mrs. Clay" Silver Challenge Cup** for Class A., Section 1, White Wyandottes.—A. Snowden, Pool, 308; Dr. J. E. Helm, Waterfoot, Lancs., 312; Mrs. Clay, M.B.E., Long Preston, 208.

The **"Tom Barron" Silver Challenge Cup** for Class A., Section 2, White Leghorns.—Lord Dewar, East Grinstead, 181; R. Rodwell, Nelson, 174; H. Smith, Sheffield, 158.

The **"Sir Donald Horsfall" Silver Challenge Cup** for Class A., Section 3, A.O.V. Light or Heavy.—S. Street-Porter, Ely, Cambs. (Anc.), 167; W. M. Golden, Leire, Rugby (R.I.R.), 158; Tom Barron, Catforth (R.I.R.), 106.

The **"Frank Snowden" Silver Challenge Cup** for Class B., Section 4, White Leghorns.—G. W Sutcliffe, Hebden Bridge, 206; R. H. Fryers, Bradley, Keighley, 199; Lieut.-Colonel Eden, Cranswick, 176.

The **"Allen Bros." Challenge Cup** for Class B., Section 5, Black Leghorns.—R. Rodwell, Nelson, 213; Colonel Spence, D.S.O., Kirklevington, 91; Davey and Son, Sutton, 85.

The **"Jack Wrennall" Silver Challenge Cup** for Class B., Section 6, White Wyandottes.—Sutton and Sons, Preston, 264; J. H. and W. Brayshaw, Cross Roads, 206; E. Watson, Earby, 190.

The **"Fred Simpson" Silver Challenge Cup** for Class B., Seciton7, Rhode Island Reds.—D. E. Kitchen, Easton, 178; Miss Maddisor, Dane Hill, 171; R. Rodwell, Nelson, 195.

The **"Will Hamnett" Silver Challenge Cup** for Class B., Section 8, A.O.V. Light or Heavy.—S. Wigglesworth, Farsley (B.Rks.), 182; J. W. Towler, Farsley (B. Rks.), 172; A. White, Malpas, (L.S.), 182.

The **"Yorkshire Federation" Silver Challenge Cup** for Class C., Section 9, any Variety, Light.—Mrs. Hawkesworth, Pool (W.L.), 38; S. Hartley, Haworth (W.L.), 38; A McV. Godfrey, Adel (W.L.), 36

The **"Percy Wainwright" Silver Challenge Cup** for Class C., Section 10, any Variety, Heavy.—Miss Mawson, Adel (Bf. Rk.), 46; Mrs. Hawkesworth, Pool (W.W.), 46; S. Hartley, Haworth (W.W.), 47

The **"G. R. Poole" Silver Challenge Cup** for the best pen, any colour, Orpingtons, Australorps or Rocks.—S. Wigglesworth, Farsley (B. Rks.), 182; J. W. Towler Farsley (B. Rks.), 172.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, JANUARY 8th, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is less freely offered, and, with a fair demand, is dearer at all markets except Bristol, the average quotation being 12s. 8d. per cwt. as compared with 12s. 6d. last week. Imported wheat generally meets a slow trade, but recent prices are fully maintained at most centres, No. 1 Manitoba at an average of 15s. 4d. per cwt. being 2d. per cwt. dearer on the week. Trade and prices for home-grown malting barley record little change, good samples being in demand, while lower grades meet with little inquiry. Feeding barley is in little request, but British mostly sells at late rates, while imported is slightly cheaper. Oats also meet a quiet trade, and imported descriptions are reduced at most markets, while English make recent quotations. Maize is in better supply, and, with a slow demand, is cheaper, Argentine averaging 8s. 10d. per cwt. as against 9s. 1d. in the previous week.

Millings offals are in little request, and at London and Bristol both bran and coarse middlings are cheaper on the week. Bran now averages about £8 4s. and coarse middlings £8 9s. per ton. Meals also meet a dull demand, and reductions have occurred at all markets. Linseed cake generally sells at recent prices, while at most centres some descriptions of cotton seed cake have declined in value.

MILLERS' OFFALS.—Bran (British): Bristol, £8 15s; Hull, £8 2s; Liverpool, £8 10s; London, £7 10s. Broad Bran: Hull, £9 12s; London, £9 2s. Middlings—Fine (Imported): London, £8 10; Coarse (British): Bristol, £8 15s; Hull, £9; Liverpool, £8 5s; London, £7 15s. Pollards (Imported): Bristol, £7; Hull, £6 10s; Liverpool, £6 12s; London, £6 17s. Rice Bran: Bristol, £7 7s; Liverpool, £7. MEAL.—Barley Meal. Bristol, £9 15s; Hull, £9 15s; London, £10 2s. Maize Meal: Bristol, £10 15s; Hull, £9 18s; Liverpool, £10; London, £10 7s. Maize Meal (S. African): Bristol, £9 10s; Hull, £8 10s; Liverpool, £8 7s; London, £9 2s. Maize Germ Meal: Hull, £9 10s; London, £9 5s. Maize Gluten Feed: Bristol, £11; London, £9 17s. Locust Bean Meal: Bristol, £9 15s; Hull, £10; Liverpool, £9 10s; London, £9 12s. Bean Meal: Bristol, £13 10s; Hull, £12 2s; London, £12 5s. Fish Meal: Bristol, £21 10s; Hull, £20 10s; Liverpool, £20; London, £20.

EGGS AND DEAD POULTRY.

All classes of eggs are marketed in increasing quantities, and, with only a small trade passing, values are weaker all round. Supplies of dead poultry are good and prices have hardened at Bristol and Liverpool, but a very poor inquiry exists at London, where most birds are cheaper.

Week-end Prices—Eggs (per 120): British, 26s 9d; Irish, 26s 0d, 25s 0d; Danish, 28s 9d, 27s 9d; Dutch, brown, 29s 9d, 28s 6d; Dutch, mixed, 27s 0d, 24s 6d; French, brown, 29s 3d, 28s 0d; French, mixed, 25s 6d, 24s 9d; Belgian, 27s 0d, 25s 9d; Italian, 24s 3d, 23s 9d; Egyptian, 9s 9d, 9s 0d; Lithuanian, 18s 3d, 17s 0d; Polish, 17s 0d, 15s 3d; Chinese, 15s 0d, 13s 0d; Russian, 16s 6d, 14s 0d; Australian 21s 3d, 20s 3d; American, 17s 6d, 17s 0d; Argentine, 15s 0d, 14s 0d; Styrian, 17s 6d, 16s 6d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 8d, 1s 6d; Irish, 1s 4d, 1s 3d; Others, 1s 6d, 1s 4d. Ducks, 1s 7d, 1s 3d. Geese, 1s 3d, 1s 1d. Turkeys, 1s 9d, 1s 6d

EGGS.

Per Doz.—Ashford: First, 2s 4½d; Second, 2s 2d. Birmingham: First, 2s 8½d; Second, 2s 6d. Bridgwater: First, 2s 5d; Second, 2s 3d. Chelmsford: First, 2s 8½d; Second, 2s 4¾d. Colchester: First, 2s 6½d; Second, 2s 1½d. Doncaster: First, 3s 3d; Second, 3s 0d. Dorchester: First, 2s 2d; Second, 2s 1d. Exeter: First, 2s 4d. Hereford: First, 2s 6d. King's Lynn: First, 2s 6d; Second, 2s 4d. Llandilo: First, 2s 3d; Second, 2s 1d. Mold: First, 2s 10d, Second, 2s 9d. Newport (Mon.): First, 2s 9d; Second, 2s 6d. Norwich: First, 2s 10d. Oswestry: First, 2s 3d. Penzance: First, 2s 2d; Second, 2s 1d. Saffron Walden: First, 2s 4¾d; Second, 2s 1½d. St. Ives (Hunts): First, 2s 6d, Second, 2s 3½d. Salisbury: First, 2s 3d; Second, 2s 2d. Skipton: First, 3s 0d; Second, 2s 9d. Truro: First, 2s 1d. Welshpool: First, 2s 4d; Second, 2s 0d. *Carlisle: First, 2s 9d. *Derby: First, 2s 11d. *Ipswich: First, 3s 0d; Second, 2s 6d. *Lincoln: First, 2s 6d. *Shrewsbury: First, 2s 9d; Second, 2s 8d. *York: First, 2s 8d; Second, 2s 6d.

FOWLS.

Per lb.—Birmingham: First, 1s 6d· Second, 10d. Doncaster: First, †6s 0d; Second, †5s 6d. Exeter: First, 1s 5d; Second, 1s 3d. Hereford: First, 1s 3d. Llandilo: First, 1s 7d; Second, 1s 4d. Newport (Mon.): First, 1s 6d; Second, 1s 2d. Skipton: First, 1s 6d. Truro: First, 1s 4d. Welshpool: First, 1s 4d; Second, 1s 2d. *Derby: First, †5s 6d; Second, †3s 6d. *Ipswich: First, 1s 8d; Second, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d. *York: First, †6s 0d; Second, †5s 6d.

(Continued at Foot of Next Column).

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, January 13th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscription to "EGGS," 12s. 8d. per annum; 6s. 4d. for six months, 3s. 3d. three months, post free.

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Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick, Sussex.

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Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

DUCKS.

Per lb.—Birmingham: First, 1s 3d; Second, 1s 0d. Doncaster: First, †7s 0d; Second, †6s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 3d. Llandilo: First, 1s 7d; Second, 1s 4d. Skipton: First, 1s 8d. *Ipswich: First, 1s 6d. *Shrewsbury: First, 1s 6d; Second, 1s 3d. *York: First, †6s 6d; Second, †6s 0d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY. JANUARY 20th. 1926.

Editorial.

THIN-SHELLED EGGS.

I have received the following letter from Mr. J. Pool, Whaletown, British Columbia :—

> "I enclose my renewal for 1920. "Eggs" is easily our greatest help, and is practical and stimulating beyond words.
>
> Would an article from you on thin shells work into your programme for the near future, because it is one of my most serious problems, and not mine alone?
>
> I am feeding a modification of your mash: 4 feed flour, 2 bran, 1 alfalfa leaf, 1 pulverised oats, 1 corn meal, substituting fresh cabbage usually for the alfalfa, and either boiled fish or milk and bone meal for the beef scrap. The fish is home-salted salmon, steeped and boiled till the bones crumble. Allowing 2 lbs. of fish to equal 1 lb. meal, I aim at less than 10 per cent. protein. Still I get thin eggs. But the trapnest shows that this is nearly confined to individuals, and the worst cases discarded and marketed, and even doubtful culprits and those laying roughened-ended eggs are excluded from the breeding pens, while from the pen from which I intend to hatch my breeders, every hen is excluded who does not habitually lay eggs of perfect texture. Hope soared again. Now I am told that this individual trait may not be due to hereditary, but to the bird not taking enough shell. I am also told that the shell I use (and get fresh as required from below high-water mark), is, being mainly barnacle and mussel, deficient in calcium, yet the trouble is new, and the source of the grit is not."

Everyone who has trapnested a large number of birds is aware that there are individuals which habitually lay thin-shelled eggs. These individuals we believe are constitutionally unable to assimilate sufficient lime for the purpose of properly shelling their eggs. It is not a case of their not consuming enough shell. This trait they will transmit to their progeny. Therefore, we may conclude that Mr. Pool is working on the right lines when he decides to exclude them from the breeding pens.

We know that thin-shelled eggs are less common with such breeds as the Rhode Island Red, Buff Rock, and Black Leghorn, to give only three examples, than they are with the White Wyandotte and the White Leghorn, and we may assume that this is due to the greater prolificacy of the two latter breeds. We also know that where selection has been made for shape and texture of shell, that the thin-shelled eggs is less common than where this has not been done, therefore we may conclude that the predisposition to lay thin-shelled eggs is hereditary, and by selection we can to some extent obviate it. There is evidence that the thicker the shell of the egg, the sturdier will be the chick hatched from it.

It may be that the shell of the barnacle or mussel does not contain sufficient calcium, as has been suggested to Mr. Pool. As we have no analysis, it is impossible to say; but, as he has pointed out, the trouble is confined to individuals. The one question that arises, is it confined to the most prolific individuals? In that case it is possible that the barnacles and mussel shells contain a high percentage of silicious, and an insufficiency of calcareous material.

It has been observed that birds of a highly nervous temperament have a greater tendency to lay thin-shelled eggs than the more docile ones, and we are aware that, after a period of heavy production, there is a tendency for the eggs to become thin-shelled.

From the data we have been able to collect covering many years, the most common cause of thin-shelled and shell-less eggs is a diet, which, although perfectly satisfactory during the greater part of the year, is too stimulating during the flush months of production for the naturally prolific layer. Therefore one may conclude that the breeder would do well to make some modifications in the diet at this season if he has very prolific stock. It would be wise, for example, not only to reduce the percentage of animal food, but to omit or considerably reduce the percentage of maize, whether fed as grain or in the mash. We know that birds on free range, particularly over good pasture, rarely lay thin-shelled eggs, although there may be exceptions to this rule where the soil is very deficient in lime.

Thin-shelled eggs are common when birds are placed under artificial light if the hours of lighting are too long.

We have no positive evidence, but there is good reason to believe that where there exists the predisposition to soft-bone, which results in what is called "inherited crooked breast-bone," that the tendency to lay thin-shelled eggs also exists, and is transmitted by the dam.

PRODUCER AND CONSUMER.

Recently we were invited to dine at a certain hotel in the Midlands. Conversation was, of course, almost entirely confined to the evergreen topic, and the subject of table poultry and its future came up for discussion. Glancing at the menu we found :—

"Chicken" (whole)	16s.	od.
"Leg"	3s.	3d.
"Wing"	4s.	3d.

As a normal chicken has two legs and two wings, we see that the price of these portions of its anatomy also realised 16s., so that the price of the whole bird must have been nearly 20s. Of course, the question arose as to what the producer obtained. It does not by any means follow that the said chicken was "British born." There is a probability it was not, for in many "swagger" hotels we know as an absolutely fact that only foreign poultry are purchased, and these not of the highest class. One point in connection with these extortionate charges is the fact that they do not encourage the demand for English Table Poultry, and it would perhaps help matters if the attention of the general public was directed to the price received by producers and that paid by the consumer.

THE GLOUCESTERSHIRE EGG-LAYING TEST.

Report for Month ended December 4th.

The following is the report on the Gloucestershire Laying Test (under the supervision of Mr L. G. Price, County Instructor in Poultry Keeping) for the second month ended December 4th, 1925.

During the month 4,265 eggs have been collected, against 4,139 the previous month, giving a total of 8,404 for the two months, and an average of 26 per pullet. Considering the severe weather, snow and frost, experienced during the month, the average for both pullet and duck sections is regarded as satisfactory. A few birds have gone into a partial moult.

Figures indicate points awarded.

Section A. (1). White Wyandotte (Professional). Five birds constitute a pen).—T. L. Davies, 995; G. W. H. Roberts, 919; P. M. Hinton, 825; H. Ludlow Hewitt, 824; H. W. Fowles, 794; Miss D. Jones, 629, H. Bennett, 410.

Section A. (2). A.O.V. Heavy Breed. (Professional).—C. D. Pratt (Bf Rk.), 1022; G. B. Metcalfe (R.I.R.), 1020; G. H. H Simmons (Bf. Rk.), 968; M. C. Beale (R.I R.), 826; Miss M. Lawrence (Bf. Rk.), 753; Miss M. Lawrence (L.S.), 740.

Section A. (3). White Leghorn (Professional).—Sherborne Park P.F. (36), 985; G. W. H. Roberts, 897; Bibury P. Farm, 362; Sherborne Park P.F. (1), 832; J. L. Brown, 805; Miss H. Baylis, 776

Section A. (4). A.O.V. Light Breed (Professional).—F. W. Clifford (B.L), 705; J. L. Brown (An.), 662; Capt. W. E Anderson (An.), 659. Churchdown P.F. (An.), 493; E. S. Coley (Ex. Leg.), 380.

Section B. (1). A.V. Heavy Breed. (Confined to owners of not more than 50 laying head).—G. D. Bond (W.W.), 937; W. P. Merrett (W.W.), 838; E. A. Craft (L.S.), 769; E. G. Brown (W.W.), 504; J. C. Dee (R.I.R.), 450.

Section B. (2). A.V. Light Breed. (Confined to owners of not more than 50 laying head).—E. G. Brown (W.L.), 455; C. E. Skirten (W.L.), 42?; F. E. Fowler (Br. L.), 261.

Pen Duck Section. (Four ducks to a pen).—S. J. Phillips (K.C.), 119. G. H. H Simmons (K.C), 17; Mrs. H. L. Hanks (K.C.), 104; G. B. Young (K.C.), 94; Major J. G. Dugdale (K.C), 93; F. W. Clifford (K.C.), 75.

SINGLE PEN SECTION.

Section 1. White Leghorns.—Fielding Smith (4), 240; L. Grist (14), 230; Churchdown P.F., 200; Misses Ransford (17), 185; A. Daunton, 184; G. H. H. Simmons, 180.

Section 2. White Wyandotte.—H. W. Stephens (30), 230; Miss H. Baylis, 224; H. W. Stephens (28), 203; L Grist, 200; H. W. Fowles (29), 192; A. W. Harrison, 185

Section 3. Rhode Island Red.—F. A. Welch, 218; M. C. Beale, 195; Miss M. Lawrence, 155. W. Bingle, 90; A. Daunton (46), 89 Wood and Bacon, 30

(Continued at Foot of Next Column).

Modern Poultry Feeding.

By TOM NEWMAN.

PALM NUT KERNEL MEAL.

A Lancashire correspondent writes :—

> "This week I have been strongly recommended to use palm kernel meal and oil dust in the mash for winter egg production.
>
> Can you recommend a mash with the kernel meal and oil dust? if so, in what proportions. It was very eulogistically handed to me. My present results are barely 40 per cent. for pullets (early and late), 2-year-old and some 3-year-old combined. Many of the best breeders are not yet laying. Of course, there is room for improvement, would the above help? At present I am using 10 lbs. best bran, 40 A.1 thirds, 10 S.G.O., 10 maize meal, 5 soya bean meal, 8 meat and bone meal, and 2 dried yeast. Would it be wise to use the nut and oil meal as an alternative to this mash?"

As most of my readers are aware, palm nut meal was largely used during the war. The results were not wholly satisfactory, but we had to make the best we could of it. It was unpalatable, the birds would not eat it readily, and its introduction frequently resulted in a big drop in the egg yield, and, of course, a much lower consumption of mash for the time being. In many cases where the chemically extracted was used the birds scoured badly. It was said to have a feeding value equal to good sharps, but this, based on the chemical analysis, is too general a statement, and is incorrect. It is largely used in some proprietary mashes, generally some condiment is added to disguise the taste, or to induce the birds to eat it. Its chief recommendation is that it is cheap. Whatever may be its value as a cattle food, I do not recommend it for poultry, when there are so many better foods, at an economic price. My experience has been that coco-nut meal is a far more satisfactory food. My correspondent's mash should produce eggs, although the cost would be too high when using such an expensive food as dried yeast, which is hardly necessary when soya bean meal is included. His 40 per cent. is not so bad as it looks when we consider the two and three-year-old hens in his flock. It would be wise to handle his breeders and find out their condition. If he is inclined to give the palm kernel meal a trial, it would be wise to introduce it gradually into the mash.

Section 4. A.O.V. Light Breed.—R. Sysum (Bn. L.), 120; White and Martin (B.L.), 102; Churchdown P.F. (B.L.), 40.

Section 5. A.O.V. Heavy Breed.—Mrs. E. Weinholt (Aus. Orp.), 225; Miss M. Lawrence (Buff Rk), 180; G. B. Young (L.S.), 171; J. G Herbert (B'Veld), 158; G. H. Simmons (Bf. Rk.), 155; F. R. Welch (49) (L.S.), 135.

Section 6. Ducks.—G. H. H. Simmons, 54; H. L. Hanks, 64; Major J. G. Dugdale (3), 53; H. W. Fowles (2), 49; Major J. G Dugdale (4), 49; H. W. Fowles (9), 47.

RICE.

A letter comes from the West Country, in which the writer asks as to the value of rice as a poultry food. He has a chance of obtaining a quantity at a favourable price—presumably damaged. Rice is almost a pure carbohydrate, deficient in protein, and in its mineral content unsuitable for growing chicks, and of little value for egg production. It is, however, extremely useful for fattening, and gives a nice firm white flesh. One can, of course, compensate for its deficiencies in many ways; when boiled in milk the protein and mineral salts are supplied, or cooked with 15 per cent. fish meal or meat and bone meal, and dried off with coarse thirds, it is a useful feed, and a fairly economical one. For the reasons given, it is necessary to use a higher percentage of animal protein than with other cereals.

LOCUST BEAN MEAL.

Several enquiries have reached me lately as to the possibilities of locust bean meal as a poultry food. The price is stated to be £10 per ton. I have no experience of it as a poultry food, and can only judge it on its analysis, and add that it is palatable, and for that purpose may be useful in the mash in small quantities. It is very deficient in protein. I would suggest to any of my correspondents who wish to give it a trial, that they replace half the maize meal in the mash with it. It may give good results by increasing the palatability of the mash, although if a larger quantity was used, it is possible that the birds may get sick of it. The analysis is as follows:—

AVERAGE COMPOSITION:

Water	Protein	Oil	Carbohydrates	Fibre	Ash
15·0	5·8	1·3	69·0	6·4	2·5
DIGESTIBLE NUTRIENTS.					
	4·0	0·7	65·5	3·7	

When the S.P.B.A. experimental farm is in full swing I hope we shall be able to go fully into this question of palatability. It is an important factor in successful feeding which has been much neglected. Few of us realise, I think, what an immense difference there is in the consumption of food, and the effect upon egg production of an unpalatable mash, but we shall test this later on.

B.W.D. AND FEEDING.

May I suggest to readers that where there is a high mortality with chicks it is advisable at once to send two or three for post-mortem examination. I have three letters to-day. In one the writer says, "We have lost 113 chicks, and suspect the food is at fault, and we are sending you samples." The samples came to hand, and careful examination revealed nothing which would account for the mortality. From the symptoms described I suspect B.W.D., but think of the time wasted and the possibility of infecting others. I agree, it is quite right, that the food should be carefully examined when there is high mortality, as it is often the source of the trouble, but the first thing is to find out what is the matter with the chick. Will readers please note that we have not the facilities for making post-mortem examinations at Rudgwick. Birds intended for post-mortem examination should be sent to Major Saunders. I am not a bacteriologist, and I don't like guessing. Once again I would warn readers of the folly of feeding stale food to chicks or hens. The warning is particularly applicable at this season. Chick feed left over from last year is not suitable for feeding this. It would have been far better to have given it as a scratch feed to the hens. Another warning, don't feed infertile eggs from the incubator. There is always the possibility that one or more of them may have been laid by a "carrier," and the result would be a bad outbreak of B.W.D., for the conditions in the incubator are highly favourable to the development of bacteria.

(Continued at Foot of Next Column).

Correspondence.

MEAT PLUS EGGS.

To the Editor of "Eggs."

Dear Sir,—I am surprised to read Mr. Francis M. Hemelryk's (Jan. 6th) criticism of the White Leghorn, so entirely unwarranted by the experience of my farm (The Old Down, Basingstoke), where for some fourteen years, since its inception by Mr. S. G. Hanson, an average flock of 1,600 W. Leghorns show beyond dispute, not only no decrease in egg productiveness, but, as regards the size of egg, an actual slight increase. Re this latter point, I found on personally weighing each of the eggs laid to-day (7th inst.) that the pullets averaged $1\frac{15}{16}$ oz, and the hens averaged $2\frac{1}{8}$ to $2\frac{3}{16}$ ozs.

Smithfield highest quoted price for first grade eggs, each Monday, is received for all these eggs plus a premium of 2/6 per long hundred on those over 2 ozs.

Without reckoning the variable items of hatching eggs or stock sales a profit (under Schedule D) is claimed by our merciless local tax-gatherer.

Concerning sale of cockerels, we find it more profitable to kill them off immediately identified, except to fulfil an order for such as stock birds.

If all ground (10 acres) and houses are to be utilised to maximum capacity half the flock must be annually sold off in time to clean out half the houses for the 800 meadow pullets before laying commences. To keep birds for a third season would entail more capital expenditure on land and houses or a risk of fouling the existing land with resultant loss of stamina, unless a smaller hatch cut was arranged for the year in question. This procedure, however, would create difficulties of regaining complement subsequently in requisite rotation. This, as stated above briefly, is our experience, practice and theory.

My assistants, who have worked exclusively here the whole of Mr. Hanson's proprietorship, and hence from a daily intimate association with the breed, have an expert knowledge of past and present appearance and performance of the birds second to none, advise me of their entire disagreement with Mr. Hemelryk's premises and his recommendations.

I submit these easily verifiable facts in the hope that some other who, like myself, is entirely dependent on the W. Leghorn, may endorse or qualify by his experiences this opinion for the enlightenment of all concerned.

Yours faithfully,

SELWYN M. DAY.

THE STAMPING OF EGGS.

To the Editor of "Eggs."

Dear Sir,—With reference to Mr. Oldham's remarks, in the issue of "Eggs" of January 6th, on the question of stamping, I beg to offer a few facts which I can vouch for personally, though I adopt a nom-de-plume for obvious reasons.

(1) In our local market I noticed large supplies of eggs are offered for sale from time to time, but none are stamped.

(2) One or two of the large and regular producers are "boosted" by the auctioneer naming their lots specially.

(3) One of my friends, seeing I was stamping my eggs, advised me not to do so, and I asked him why? He replied, the public were suspicious and received such as "foreign." I was unconvinced.

(4) Later the auctioneer suggested I would obtain better prices if my eggs followed the usual rule and were not stamped. I asked him to explain. He called up a buyer, who is a regular purchaser, and asked him if he liked eggs he was buying stamped or not? The gentleman promptly answered **unstamped.** I then challenged him with his particular reason. He evaded a direct reply, and then the auctioneer, who had advised me not to stamp my eggs, intervened, and said, "You prefer to stamp them as **your own?**" Mr. Buyer assented **silently.**

I then sent in my next lot as a test **unstamped,** and the price I realised were the lowest I had obtained, while other eggs obtained better average prices on that day.

I am taking other steps to dispose of my "eggs" now, and send them stamped properly and graded, of course.

"QUOD ERAT DEMONSTRANDUM."

"A PLEA FOR THE LIGHT SUSSEX."

To the Editor of "Eggs."

Dear Sir,—What is the cause of the wide variance in type in this, one of the most valuable all-round breeds of the day? There is little doubt that very far-reaching damage is being done to the Light Sussex by the so-called "fanciers" at one end, and the man who thinks solely in eggs at the other end. Let me first take the "exhibition" bird as produced by the "fancier" (or, as Mr. Harold Morse terms him in a recent article, the "fidler"), and what do we find? In the greater number of cases, **coarseness** carried to a degree. The exhibition breeder requires shape, size, and colour, external qualities only. A bird perfect in these three points he would probably describe as typical, leaving out of account all utility qualities, which must essentially also go to constitute the description "typical."

A coarse-fleshed bird, lacking the ability to lay a reasonable number of eggs of a certain weight in the year, cannot be truly typical of its breed—that is, you have not got combined in that bird the necessary qualities that go to make it a typical example of what it should be; if the aim in view is to be that of "profit." And that surely is the sole reason for the humble chicken's existence so far as it concerns mankind. In the breeding of all larger stock, an animal is reared with some specific "utility" purpose in view, be it a retriever, shire-horse, or dairy cow. The dictionary tells us that "utility" means "usefulness"; "stead"; "service." Of what **service** is a fowl bred entirely for exhibition purposes—that is, on the lines that we know it is bred to-day? Go to any show where exhibition classes are catered for, and you will see the "monstrous abnormities" to which I refer. Great heavy heads, thick in feather, with dull sunken eyes, coarse boned, over big frames, and coarse thick legs. This is what you will find in far too many cases, a type of bird entirely lacking in all **useful** characteristics.

And now I will pass to the other side of the picture, to the breeder who is only able to derive one meaning from the word "utility," and that is "egg production." I will instance a case of my own experience this season. I applied recently to a breeder, who has won first place in the Light Sussex class at one of the leading tests in the country, also obtaining the Poultry Club medal for breed characteristics. In reply to my enquiry he sent me a pen of breeding hens on approval. Obviously, these birds had been bred with but one aim in view, "eggs, and yet more eggs." They had lost practically all their breed characteristics. What hackles they had were of a nondescript marking; they had smutty under-colour, and they were possessed of tails that any Leghorn might well have been proud of! I had previously tried another so-called "utility" breeder for a cockerel. Personally, had it been of my own breeding, I would have labelled the bird he sent me "For table" without hesitation. The price I was asked for this bird was, I think, somewhere in the neighbourhood of £5 5s. There must be people who are content to pay for such caricatures of Sussex, no doubt encouraged to do so by the statement that I have myself been met with, that you cannot expect to get **type** in **utility** Light Sussex. Why not? I do, and I shall continue to do so. **It means very selective breeding, which necessitates drastic culling.** But it can be done. This does not, of course, suit the man who thinks in terms of eggs only regardless of all else. **Reasonable** egg production, however, combined with correct type, can be obtained. That so many utility breeders ignore the question of type is a matter that is to be greatly deplored, as there is no better all-round breed than the Light Sussex, combining, as it does **(or as it should),** egg production with the finest table qualities, and a beautiful and attractive appearance. The breed is healthy and hardy, and the chicks are easily reared in comparison to many other kinds.

Those few breeders who try to maintain the breed as it should be, in accordance with standard type, setting their faces rigidly against extremes, will no doubt profit by so doing. It is difficult, however, to see how they can keep on indefinitely in face of an army of cracked extremists, divided into two camps, with such widely divergent views. As a keen admirer of this truly ideal utility breed, I would say to all breeders: "Take a leaf from the book of the breeders of mammal stock. Breed for beauty and usefulness combined, thus ensuring the truly typical fowl, and avoid extremes as you would the plague."

I have had numerous complimentary communications upon my recent letter to you on the subject of "in-breeding and the size of eggs," and this leads me, before I close, to say that the Sussex as a breed are **not** prone to yielding small eggs as compared to other breeds. There is a prevalent idea that they are. It is simply a question of careful and selective breeding, without which you can attain nothing.

Yours truly,

A. MUNRO-SPENCER.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answers all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to **Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.**

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

ALL questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

M. M. G. (Newry) writes that he would be very grateful if I would tell him how to prevent and cure leg weakness in chickens. They do very well until they are about three weeks old, when they start to show symptoms of leg weakness. They have entirely skimmed milk to drink, and he feeds them on my chick mash, scratch feed, etc., and they do splendidly until they are three weeks old. As the chicks have skimmed milk we can be fairly certain of one thing, that the mash is not deficient in the lime phosphates, and provided they have green food we can safely say that there is no deficiency in the formula. Now the point is as to the cause of leg weakness. We know something about these ultra-violet rays, and also that they assist in the assimilation of the calcium salts, but ordinary glass does not admit these rays, and we also know that cod liver oil will prevent and cure leg weakness if added to the mash in the proportion of two per cent. The best way is to rub it into the bran, and mix it with the mash. I must assume that my correspondent's chicks do not get much run out at this season of the year, and it is to this cause we must attribute the leg weakness. The best prevention will be to admit as much sunlight and fresh air into the brooder as possible. If possible remove the glass, so that the chicks should have at least for one hour a day the full value of the sun's rays. If this in itself is not sufficient, add two per cent. cod liver oil to the mash.

"Fortune" (Hawkchurch) writes re Scaly Leg:—"I should be glad to know what causes scaly leg—if it can be cured, and how? I have several bad cases in my small flock of 60 Light Sussex. My worst cases are among my last year's pullets, which are only ten months old." Scaly leg is caused by a parasite which burrows underneath the scales at the foot and leg, and burrow deeper and deeper into the tissue. They set up irritation which leads to the increase of cells and exudation of serum. This accumulation forms crusty deposits beneath the scales. My experience has been that in light and dusty runs, or where the birds are kept in dry ash runs, scaly leg is far more prevalent than elsewhere. Prevention is rather difficult. A good plan is to frequently paraffin or creosote the perches, as the mite frequently crawls along from one affected bird to another. The trouble is not difficult to cure. Soaking the legs well in warm soapy water and applying a two per cent. solution of Izal, or equal parts paraffin and linseed oil, will generally prove successful. This should be done two or three times, but it is important, when using paraffin or linseed oil, that it should not come in contact with the skin or feathers. On more than one occasion I have known birds die from shock, which has been caused by pure paraffin coming in contact with the skin when the legs have been dressed. May I take this opportunity of answering another correspondent here, and assuring him that scaly leg is not an inherited disease.

A. M. F. (Pinner) wants advice re a pen of ten birds in their second year. At present only one of them, a Wyandotte, is laying. They have been fed for the last six weeks on dry mash, sample of which he enclosed. Without going further into the matter we may say that the quality of this sample leaves much to be desired, and that in addition to this he is failing to give the required quantity of grain. It is a clear case of under-feeding. He says, for example, they have food in hoppers always before them, with a little grain in the litter night and morning. I would suggest that he makes the mash as follows:—2 bran, 4 middlings, 1 Sussex ground oats, 1½ maize meal, and one meat and bone meal; that he gives a small scratch feed of grain in the morning, say one handful between every five birds, and a good two ounces of grain per bird as the last feed at night, preferably equal parts kibbled maize and wheat.

F. K. (Shipley) has been reading the article on rearing chicks intensively, and as he is greatly troubled with hawks and magpies he has great difficulty in rearing the chicks. As soon as they come out of the house they are picked up by these birds. He has thought of rearing them to about six weeks old intensively, and wishes to know what kind of litter to use. Last year he used two inches of soil on a boarded floor, with chopped straw for litter, for the chicks reared under a hover, but he was greatly troubled with toe-picking. The best litter to use would be that which he used last year—namely, earth on the boarded floor with chopped straw. To prevent toe-picking at the outset, blue-wash the windows of the brooder and see that the chopped straw used is bright and clean. As mentioned many times before, toe-picking is merely a vicious habit usually caused by the sun's rays reflecting on the bright yellow legs of the chicks. The habit of the chick is to peck at anything bright. When they do this and blood is drawn the fun begins. By blue-washing the windows and putting bright clean straw on the floor, it is usually possible to prevent an outbreak, and sometimes to check it when it has started.

S. M. M. (——) writes that he is thinking of preserving a number of eggs in waterglass, using galvanised iron tanks for the purpose. Most people use earthenware jars, but for a large number he thinks the tanks would be better and cheaper, besides which the tanks would be useful for other purposes later. Would it be all right to use the tanks? (2) Since December 1st he has been in the habit of lighting one of his huts from 9.30 to 10.15 p.m., and giving the pullets—about 220 White Wyandottes and R.I. Reds—an extra feed of grain. He wants to breed from the Reds, and has just mated them. Now he has been told that the lighting will have a bad effect on the cockerels, as they require a full night's rest, and that they should always be removed. Is there anything in this? (3) He has got a chance of some buckwheat at £9 10s. per ton. He has never tried it before, do I think it would be safe to mix it with equal proportions of wheat, maize and oats and feed as a scratch feed?—In answer to his first question, it will be quite all right to preserve the eggs in the galvanised tanks in waterglass, but limewater is to be preferred. It would be advisable to discontinue the lights, as he intends to breed from these Red pullets. I do not anticipate that the occasional lighting will have much effect upon the cockerels, but it will not be conducive to good hatchability to give the pullets this extra lighting, and he should stop it at once. If the buckwheat is a good sample he could use it as he suggests, as it is a useful feed.

P. B. (Normanton) asks for a breeder's mash for birds on earth runs and the grain to use with it. The following would be the best mash "P.B." could use, as he has no green food:—7 lbs. clover meal or alfalfa meal, 7 bran, 56 middlings, 14 maize meal, 14 Sussex ground oats, and 14 fish meal. The best grain to feed with this mash would be two parts wheat, one oats, and one kibbled maize.

POST-MORTEMS.

R. S. K. There was nothing to indicate the cause of death in these chicks, no lesions or parasites being discoverable on post-mortem or microscopical examination, and the food was being digested well. At that it might still be B.W.D., and if you have any suspicion of that, perhaps you would like a bacteriological examination made, in which case would you kindly forward a newly-dead subject. I believe in the possibility of the male bird being a "carrier" and capable of disseminating the bacilli, and of infecting others, but further proof is needed that he does infect the egg he fertilises.

H. C. W. The post-mortem examination of the chicks showed the cause to be rickets and mal-nutrition (from faulty assimilation). No parasites were to be discovered upon microscopical examination of the bowel contents. The long bones were so devoid of lime salts that they could almost be tied into knots, and it was impossible to fracture them by bending and twisting, and the beaks were of the consistency of rubber; a normal five-days old chick's leg will break with an audible snap when bent. I should think that there must be a deficiency of lime salts in the foodstuffs, as it is hardly likely that so many would show the ricketty predisposition, and would suggest that fish meal be added to the ration to supply the minerals lacking. The food samples were sound and free from adulteration, and no fault could be found as regards their quality, but they may have been grown on land deficient in lime, which would to some extent account for the trouble. Two per cent. cod liver oil added to the mash would also be of service, as supplying essential vitamins which appear to have close connection in the prevention of rickets.

R. N. S. The post-mortem examination of the Leghorn pullet showed that the ovary was in a state of hyper-activity, and that many ova were apoplectic. This, of course, would explain the laying of soft-shelled eggs, the ova being matured and passed along too rapidly for the shelling process to take place; loss of leg power is a frequent symptom of ovaria uterine, liver, and kidney irritation, and would be consistent with the conditions described. The trouble appears to be due to over-stimulation, but may be due to individual precociousness, but as several have suffered from a like condition I should suggest that a modification be made in the diet, and that a small dose of Epsom salts be given to lower tension but not to purge unduly, 15 to 20 grains per bird in the drinking water for a day or so should be sufficient.

MEMBERSHIP OF THE S.P.B.A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

WHAT'S IN A NAME?

The following letter has been received from Mr. E. J. Bacon, President of the Western Counties Branch of the S.P.B.A.

I have been instructed by the Council to publish it, and to ask for members' opinions as to the proposal to change the title of the Association.

I may perhaps be allowed to add that it has also been suggested that the title should be: The **National** Poultry Breeders' Association.

No change could be made without the consent of the General Meeting, and if members desire a change a formal resolution should be submitted at the next General Meeting, due notice for which would have to be given:—

> "Dear Mr. Newman,—So many possible new members seem to shy at the 'Scientific' element in the title of this Association that I am constrained to make a very bold suggestion.
>
> My suggestion is that the title be changed to 'The Poultry Breeders' Association,' and I would ask those who think it undesirable to make the alteration to consider what the suggested title implies and all that it embraces.
>
> I believe that the name was chosen by the late Mr. Oscar Smart, and in those days it was doubtless desirable to include the term which I now venture to suggest might be dispensed with.
>
> Yours truly,
>
> E. J. BACON,
>
> President Western Counties Branch."

EXPERIMENTAL WORK.

I have received the following letter from Dr. Rosedale. There is much to be said for the point he raises, but let us remember that these experiments are on a comparatively small scale, and for that reason it would be almost impossible to estimate the cost of labour, as the person in charge would not be engaged for the whole time. For many reasons, if estimates of labour costs were given I am inclined to think they would be rather misleading—in fact, I should not attach much importance to them unless the experiments were on a commercial scale. Of course, we can give the cost of mash, etc. The special mash used in Wellingham experiments (I am not referring to that used in the intensive experiment) cost 13/4 per cwt. I am not quite in agreement with Dr. Rosedale that the chief advantages of the intensive system are warmth, and given the birds have a good diet they will eat more of it on this system than any other. However, the subject is open for discussion, and I will leave it to others, merely remarking that while I can appreciate Dr. Rosedale's inability to solve the problem of the ten 10 x 10 sections in the 70 ft. house, **after** dinner, I am a little astonished that he should have **puzzled** over it **before** dining:—

> Sir,—Your leader of January 6th is so important that I venture to raise one or two points concerning it which I think are of interest.
>
> As you know, in our experimental work, we have successfully reared intensively, indeed, the original birds of Professor Plimmer and myself, as our papers stated, kept in a basement room of our building.
>
> If the National Poultry Council would get Parliament to pass "A Rent Destruction Act," I think a poultry factory would pay quite as well as a poultry farm, if not better. I happen to know of one in France, where table birds are reared and eggs sold.
>
> On the farm, as you rightly point out, rearing can be done with equal success if the housing room is sufficient. Those of us who keep many chicks in small houses naturally find it desirable to have small runs attached.
>
> I am sure thousands of us have read and studied with much profit the careful experiments that you and Miss Malcolm have carried out, and must, indeed, be impressed by the excellent results you have obtained on the physiological side, yet what is of great purport to many of us is the financial aspect.
>
> I am, of course, quite agreed that it is false economy to allow the "physiological" gain to suffer on the mere ground of expense, but I am also convinced that in order to derive the utmost benefit of all that you and your co-workers have done for us, we must get a "balance" between the physiology and the cost, just as much as we strive to get a balance between, say, the calcium salts and fat in the diet!
>
> We require to compare the costs of feeding, of labour, litter, fuel, appliances, etc., of the different systems with the returns.
>
> My own feeling is that two of the greatest advantages of the intensive system are:—(1) Warmth; (2) that, having got a good diet, more of it is eaten by the birds on this system than on any other.
>
> I hope that you will allow some discussion on this subject in "Eggs."
>
> How do you divide a 70 ft. house into ten sections of 10 x 10? I have tried the puzzle before and after dinner, but have signally failed!
>
> Yours faithfully,
>
> J. LEWIS ROSEDALE.

NEW LAID AND PRESERVED EGGS.

At Reepham (Norfolk) Petty Sessions, Mrs. Mary Lovick was fined £5 and £2 18s. costs for selling thirteen preserved eggs as new laid to one of Messrs. Sainsbury's agents. The eggs were examined, and pronounced to have been preserved in waterglass, by the county analyst.

Mr. Hill, the solicitor, who appeared for Mrs. Lovick, said that Mrs. Lovick was a lady who had resided in the district for many years, and this was the first time, and somewhat late in her career, anything had been laid against her. She had been desirous of attending the court, but suffered from heart trouble, and the doctor would not hear of it.

As to the facts, he did not dispute that the eggs were sold to Sainsbury's representative, or that nine of them were preserved. It was necessary for the plaintiff's solicitor to show that defendant had committed a criminal offence, and sold to the purchaser eggs not of the substance or quality demanded. In order to make her criminally liable it was necessary on the facts to prove an offence had been committed under Section six of the Food and Drugs Act, 1875. This Section said: "No person shall sell to the prejudice of the purchaser any article which is not of the nature, substance and quality demanded by the purchaser."

The plaintiff's solicitor said: "You agree to sell us new laid eggs, and have not done so," but he could not say that they were not of the nature and substance demanded, only that they were not of the quality.

Defendant's solicitor contended here that what was sold was an egg which had not been interfered with in any shape or form.

Lord Coleridge said that the true construction of the Statute was that where a person professed to sell a particular article and sold one adulterated by another mixture, it must be taken to be in the prejudice of the purchaser, and he submitted that his friend was out of court because in order to succeed he must show that the article was sold to the prejudice of the purchaser.

Another point Mr. Hill submitted was that the prosecution, in order to succeed, must show that Mrs. Lovick warranted the eggs new laid, either by herself or her agent, and Mrs. Moy, her agent, had said that she had received no instructions to sell the eggs as new laid.

Mr. Vores observed that an egg which had been pickled in waterglass lost its reputation, and character, with its complexion, and was no longer entitled to be called "New laid." He contended that the seller must call attention to the quality of the article before the transaction was closed, and the mere fact that Messrs. Sainsbury's agent had said that the egg looked like a waterglass egg did not relieve the defendant of responsibility when she sent her eggs to Spinks when she knew he bought only new laid eggs.

Mr. Hill asked if the Bench would state a case if necessary on the points he had raised, and the Chairman replied that no doubt they would.

REGISTER.

We have received, literally, hundreds of letters of appreciation of the Annual Register, and most of the writers are agreed that it is "the best ever."

In reference to the articles published, Mr. Brown asks if it would be possible for me to insert a notice to the effect that he is very sorry for the delay in replying to the questions re in his article on "Fireless Brooders." He has received so many letters, and they are still coming by every post. The delay has been unavoidable.

The name of Mr. Brown's farm is now changed to Blyths Wood, Costessy, Norwich.

One other mistake has occurred on the part of the printers. The "Fayremead Farm," Ensbury, Nr. Bournemouth, has been given as Nr. Birmingham.

I am neither the Editor of the Register, the printer, nor in any way responsible, but on their behalf I tender apologies to Capt. Turton and Mr. Harding for the mistake.

KEIGHLEY AND DISTRICT BRANCH.

Mrs. Wilson, the Hon. Secretary of the above Branch, asks me to announce that the winning number in the Guessing Competition for the sitting of eggs, offered by Mr. W. Hamnett, of Blackpool, was 3,038, and was won by Mr. Dearnley, Fell Lane, Keighley.

NOTICE OF REMOVAL.

Mr. W. H. Farnell asks if we will notify members that he has removed from Seddon Poultry Farm, Kearsby, Lancs, to BROOK HOUSE FARM, FAIRFIELD, BUXTON.

STAMPING OF NEW LAID EGGS.

To the Editor of "Eggs."

Dear Sir,—Apart from the mixing of imported eggs with English eggs, there is a prejudice among the consuming public to stamped eggs; they dislike their food to be tampered with. This feeling is fostered by the members of unregistered Co-operative Societies, commonly called "rings," at Auction Markets, openly insinuating that stamped eggs have been through the incubator, discouraging private buyers, and then buying them up at a "knock-out" price themselves.

Stamping new laid eggs when sold direct to the retailers would be useful, if he told his customers why they were stamped. Such stamped eggs should be of good quality, both in size and contents. It would be quite an easy matter for the dealer to stamp imported eggs and sell them as English as things are now.

W. HALL.

Some Fruit-Growing Notes

to help Poultry-Keepers.

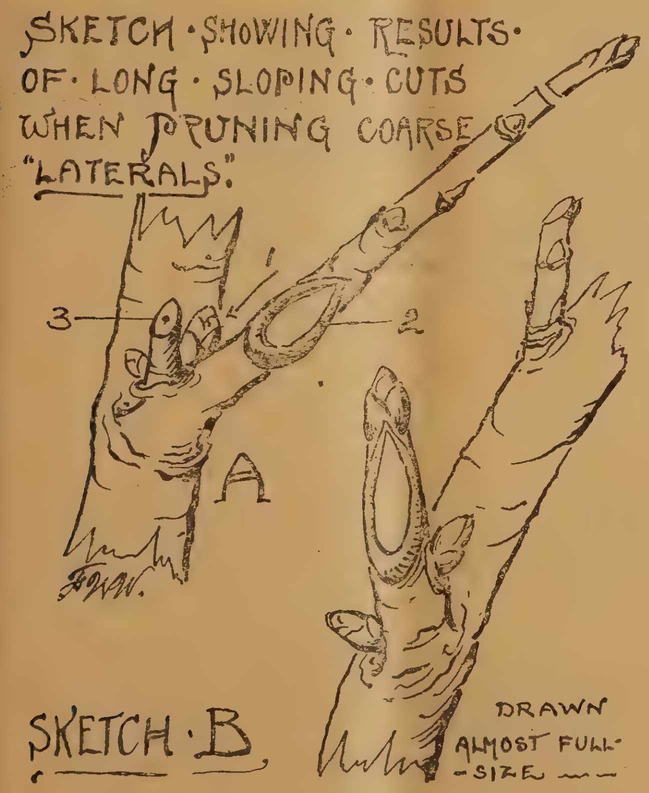
By F. W. WHEELER, F.R.H.S.

PRUNING (Continued).

When starting to write an article one often wonders how best to commence, in order not only to seize the immediate attention of readers, but also to hold it. Now that is not my difficulty to-day, because I promised to start the next lot of pruning notes with remarks on my experiments with "long sloping cuts," so I hope it will be interesting to the end.

It will be remembered that in my sketch "D," on page 421, of December 23rd, I gave an illustration of a "cut too sloping and too close to the bud" for the usual shortening of new wood growths, but in most things there are exceptions to the rule, and I propose to give one now, bearing on experiments made for a couple of years respecting a theory I had on the treatment of pruning laterals that were coarse in growth and yet not sufficiently so as to justify the usual practice of their entire removal. Unripe wood of a coarse nature should be cut away without hesitation.

Bearing in mind the fact that the hard cutting back of strong growths only encourage more strong wood growths, I decided to try if a long sloping cut would have the effect of checking, or weakening, the remaining buds, so they would fail to throw the natural strong wood shoot, and thus eventually permit these remaining eyes of the shortened lateral to develop as fruit buds.


SKETCH · SHOWING · RESULTS · OF · LONG · SLOPING · CUTS WHEN PRUNING COARSE "LATERALS".
2
1
3
2
A
F.W.W.
SKETCH · B
DRAWN ALMOST FULL-SIZE

I cannot claim that it always brought about the desired results, but I can show that in many instances it has proved my theory, and I will give just two sketches to illustrate the actual results obtained.

It will be noticed that in the first of these "A" that the eye left at the tip of the long cut was weakened sufficiently to allow of only a short wood growth, or "dart," and which, left unpruned, will undoubtedly develop and bear fruit in another season.

I would further draw attention to the eye left below the cut. Here it will be seen that a potential fruit bud is well established (at 1), and that there was another weak wood shoot which pushed itself out at the base (and now shown cut back at 3). Note also the ring showing how the long cut wound is healing over (at 2).

In the second sketch B the lateral experimented on was of an even coarser growth, and the cut still longer, and made so that the wood eye left at the tip could hardly draw enough sap to nourish it. This extra weakened eye has actually developed into a potential fruit bud, as also the other two remaining eyes.

I could give further illustrations of varying results, but I think these two are of sufficient interest to demonstrate that the difficulty of dealing with coarse lateral growths is partly met, and I trust to continue my experiments and note carefully any other developments that may arise.

In many instances the coarse growth was checked, although potential fruit buds were not immediately obtained on the spurs. Weak growth, longer than short darts, were of course easily dealt with by short spurring.

In some cases the top eye that was left died, and then snags of dead wood resulted, but these were cut back to live wood. I think climatic conditions had an influence as to some of these dead eyes, because my experiments were spread over the winter pruning months; again, other things, such as the varying vigorous condition of some trees and varieties, also affected results.

My next article will contain some sketches bearing on the pruning of older fruit spurs.

Members who desire to have their copies of "Eggs" bound into volumes, but who wish the advertisements omitted, can have this done by instructing their Bookbinder to this effect, and he will see that these pages are not included.

ANSWERS TO QUERIES—Continued.

E. M. (Liskeard) writes to ask if we can give her some idea as to the cause and cure of a disease which has recently broken out among her fowls. The symptoms are:—The formation of large crusts on the head, over the comb, etc., and in some cases completely blinding the birds. There is very little evidence of colds; in fact some of the affected birds do not sneeze. She has been treating them in the following manner:—Washing their heads with Jeyes' Fluid, one in 50, removing the crusts which seem to have roots to them, anointing with carbolised vaseline, putting Condy's Fluid in the drinking water. The birds are showing signs of improvement. She has been told that the trouble may have been brought on by the diet, which is maize twice a day—about one handful to each bird morning and evening, and dry mash, consisting of:—2lbs. bran, 2lbs maize meal, 1lb fish meal, 4lbs. sharps; green food, cabbages at mid-day. The trouble would appear to be chicken pox. My correspondent should wash the crests with warm soapy water, apply carbolised vaseline, and when the scabs can be removed, paint the spot with tincture of iodine. A plentiful supply of green food will be helpful. I do not think that the diet is actually the cause of the trouble in this case, but I would suggest that it would be advisable to replace the maize meal in the mash with Sussex ground oats, and to replace half the maize fed as grain, with an equal quantity of wheat. In addition to this it would be advisable to give in the drinking water the following mixture:—Sulphate of copper, three parts; and sulphate of iron, one part. Dissolve four ounces in a quart of water and add one ounce of the solution to every gallon of drinking water, and allow the birds nothing else to drink.

E. V. D. (Hanwell) desires to know whether trapping pullets for the next six months would enable him to pick his best birds for breeders for next season. He was unable, owing to illness, to trap during the autumn. The best thing for "E. V. D." to do would be to trap his pullets for eight weeks of the flush period, preferably beginning the second week in March. Those birds which lay three dozen or more eggs during that period will, all things being equal, be his best layers and breeders. Broodiness is the only thing likely to interfere with this test, which is fairly reliable. In reply to his second question: White Leghorn males, mated to Buff Rock hens will not give chicks whose sex can be detected when hatched. (3) I do not believe in cooling eggs during incubation It is impossible to enter into reasons here. The question was discussed in the supplement to the Dairy Show issue of "Eggs," which was devoted to incubation.

"Anxious" (Carterton) writes that she would be grateful for advice re Buff Rocks which she purchased last year for 15s. each to select breeders from for this spring. She gives the price to show they should have been good stocks. She has since discovered the person from whom she purchased them, and who obtains great success in showing, and also in the leading tests, line breeds, which, as I have pointed out is in-breeding unless in the hands of very experienced people. She mated ten of the best hens to a cockerel (30s.), and has just hatched the first sitting, and all twelve eggs hatched a chick, and they all lived three days. She knows that the cockerel is the right stuff. Since then they have all died, one or two a day, until at a week old there are only four left; one very doubtful looking. Six of the eight which died were all plastered up behind.—I will not go into further details given in this letter, but my correspondent is mistaken in saying that I have stated that line-breeding is in-breeding unless in the hands of an experienced breeder. As this breeder whom she mentions has been successful at the shows and laying tests, we may assume that she is an experienced breeder, and I cannot say that the loss of the chicks is due to any fault in the breeding stock. B.W.D. is possible, and my correspondent would be wise to send some of the chicks for post-mortem examination. On the contrary, this diarrhoea and plastering up behind may be due to chill, to some particular ingredient in the food, or to many other causes. I am wholly unable to help her. It is no good speculating on matters like this unless a post-mortem is made on the chicks. I should be misleading her if I were to attempt to advise as to the stock.

FOOD PURCHASE SCHEME.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail:—

Fish Meal (Pure White)	**20/0**	**F.O.R.**	**London.**
,, ,, ,, ,,	**20/0**	**F.O.R.**	**Bristol.**
,, ,, ,, ,,	**19/0**	**F.O.R.**	**Swansea.**
,, ,, ,, ,,	**19/0**	**F.O.R.**	**Tynemouth.**
,, ,, ,, ,,	**19/9**	**F.O.R.**	**Grimsby.**
,, ,, ,, ,,	**18/3**	**F.O.R.**	**Bradford**

PRICES OF MASHES, PER CWT.

	Layers	Growers	Breeders	Chicks
F.O.R. LIVERPOOL ...	**11/9**	**11/9**	**12/0**	**12/6**
F.O.R. LIVERPOOL ...	**12/0**	**12/3**	**13/6**	**13/6**
F.O.R. LONDON	**11/3**	**11/6**	**12/3**	**12/6**
F.O.R. LEITH	**11/3**	**11/3**	**12/3**	**13/0**
F.O.R. LEICESTER	**11/3**	**11/3**	**12/0**	**12/6**
F.O.R. GREENOCK ...	**12/3**	**12/6**	**13/3**	**13/9**
F.O.R. KING'S LYNN ...	**11/3**	**11/3**	**11/6**	**12/9**
F.O.R. BELFAST	**13/0**	**12/6**	**13/0**	**13/9**
F.O.R. BRISTOL	**11/9**	**11/9**	**12/9**	**13/3**
F.O.R. SOUTHAMPTON ...	**11/9**	**12/0**	**12/3**	**11/6**
F.O.R. PLYMOUTH ...	**12/9**	**13/0**	**12/9**	**14/6**
F.O.R. ABERDEEN	**12/9**	**11/9**	**13/9**	**13/9**
F.O.R. HARROGATE ...	**12/9**	**12/6**	**13/6**	**14/0**
F.O.R. GLASGOW	**12/3**	**12/3**	**12/9**	**12/9**
F.O.R. STAFFS	**11/6**	**11/6**	**12/9**	**12/6**
F.O.R. IPSWICH	**11/6**	**12/9**	**12/9**	**14/0**
F.O.R. SUSSEX	**11/6**	**11/6**	**12/6**	**12/6**
F.O.R. TEWKESBURY ...	**11/6**	**11/0**	**12/9**	**14/9**

		Per Cwt.
MAIZE GRITS ...	**F.O.R. LONDON**	**11 6**
MAIZE GRITS ...	**F.O.R. IPSWICH**	**11 6**
S.G. OATS	**F.O.R. LONDON**	**13 6**
S.G. OATS	**F.O.R. SUSSEX**	**12 6**
S.G. OATS	**F.O.R. BRISTOL**	**13 3**
MEAT & BONE MEAL	**F.O.R. LONDON**	**13 9**
MEAT MEAL	**F.O.R. LONDON**	**14 3**
MAIZE GERM MEAL	**F.O.R. LONDON**	**9 9**
MAIZE GERM MEAL	**F.O.R. IPSWICH**	**9 9**
MEAT & BONE MEAL	**Carriage Paid**	**15 3**
MEAT MEAL	**Carriage Paid**	**15 9**

It would be of very great assistance if members when ordering would always state station they wish goods despatched to

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A further step in the advancement of the Food Scheme has been made, and we can now offer the following articles in 1 cwt. lots, Carriage Paid, to all members in Sussex, Surrey, Hampshire, and Kent:—

LAYERS' MASH	**13/6 per cwt.**
BREEDERS' MASH	**14/0 per cwt.**
GROWERS' MASH	**13/3 per cwt.**
CHICK MASH	**16/3 per cwt**
SUSSEX GROUND OATS	**15/0 per cwt.**

These cannot at present be supplied to counties other than those mentioned above.

Report on Egg Marketing in England and Wales.

In view of the Marketing Conference which is to be held on the 27th of the present month, the publication of the above Report by the Ministry of Agriculture and Fisheries may be regarded as most opportune.

In the Preliminary Survey we have statistics of the number of fowls and ducks kept on holdings of one acre and more, from the years 1908 to 1924. It is a little surprising to find that the increase in numbers has not been greater.

Attention is drawn to seasonal fluctuations, and it is noted that the season of heaviest production in this country is from February to the end of June, with March, April and May as the heaviest months. Production reaches the lowest point in the month of November.

It is observed that traders in the Wholesale markets are emphatic in their view that production in this country is unduly low in the autumn and winter. They point out that the scarcity of supplies at these periods has a paralysing effect upon the English egg trade; they hold that, as a result, buyers are forced to turn to the Import trade for the maintenance of stable business relations, and that this must narrow the market for English supplies in the Spring.

We agree that there is some justification for this complaint, but the traders have no suggestions to make, and they are probably unacquainted with the difficulties of breeders. The real bearing on the question lies in the fact that the Specialist breeder—i.e., the Commercial Egg Farmer—contributes such a very small proportion of the total home produce, and until we can educate the farmer, not only to hatch at the proper time, but to improve the quality of his stock, the production of the autumn and winter egg is likely to be very much less than the demand.

While we have the estimates as to the percentage of eggs supplied by the specialist producer in comparison with those of the farmer, we have no statistics showing what percentage of the Autumn and Winter eggs are supplied by either. Evidence, however, shows that production in Autumn and Winter has increased in recent years, not only absolutely as a result of the country-wide increase in farm poultry stocks, but also relatively to production in Spring and Summer.

Dealing with the question of Imports, we find that these are rapidly approaching pre-war level, and it is important to note that although reference is made to the severe reduction in supplies from Russia (more than half the total imports came from that country in 1913), while in 1924 she supplied only five per cent., the tendency is now upward, and supplies may be expected to increase.

NOTE ON CONSUMPTION.

There is an interesting note on Consumption. We find that in Canada the number of eggs consumed per head of the population is 313 per annum, in Belgium 213, United States 180, France 133, Germany 117, while this country, in spite of its home produce and the imported egg, only consumes 110 per head, or one home-produced egg and one imported egg per week per head of the population—ignoring for this purpose imports of eggs not in shell. Surely here is an argument for the Home Producer to support the "Eat More Eggs Campaign"?

THE PROBLEM IN BROAD OUTLINE.

Chapter 3 deals with the problem in broad outline. "Quality is the keynote of the British Wholesale Egg Market." Attention is drawn to the fact that the free inflow of imports from surplus-producing countries, each competing keenly with one another or business, implies a steady raising of the quality standard in this country, especially as imports preponderate in the trade.

This may be good for the British consumer, but it creates a difficult situation for the British producer, who, faced with the world-wide increase in egg production, sees his own market threatened with produce of an ever-improving standard of quality.

We would draw special attention to the following remark, referring to the opportunity of the home producer disposing of his second-best. The comment is made: **" But the margin is narrowing, and evidence is overwhelming to show that the average quality of the imported egg has not only improved considerably in recent years, but is improving rapidly at the present time, and is likely to improve still further.**

THE QUALITY POINTS.

Part II. is devoted to the Quality Points, and Chapter 4 to Internal Conditions. Note is made of the fact that numerous cases are reported of incubated eggs being sent to market in such large numbers that there can be little doubt that it has been wilfully done. Both addled and infertile incubated eggs are consigned with fresh eggs from time to time, and it is not always possible to trace the offenders. Traders also complain that the mixing of pickled or otherwise preserved eggs with fresh eggs is a frequent practice among producers in the autumn. We have on more than one occasion drawn attention to this fact in these columns, and we feel that our readers will agree with us that unless these practices are stopped it is absolutely useless to attempt to organise the British Egg Industry. Five per cent. of bad eggs in a consignment is sufficient to condemn the British egg, and to induce the consumer to make odious comparisons between it and the imported egg. We hear of these practices all over the country, and we would here again repeat that until legislation is introduced which shall make this an offence, to be met with severe penalties, nothing of material value can be done.

It is discouraging in the extreme to note the remark that **"from these and similar malpractices even commercial egg farmers cannot, as a class, be entirely acquitted."** Complaints are not confined to any one locality. Eggs from North Wales, Cornwall and Lincolnshire have a particularly unhappy reputation in the trade.

We are pleased to note that attention is drawn to the practice of traders (which includes collectors and dealers) of over-holding for a rising market, mixing with pickled and cold-stored English eggs, and mixing with fresh, pickled and cold-stored imported eggs.

One point which seems to impress itself upon our minds in reading this report is that the producer must secure legislation which will protect him from the malpractices of dishonest dealers and, we are compelled to add, egg farmers, and in his own interest he should unite to ensure steps being taken in this direction.

WEIGHT.

Chapter 6 is devoted to weight of eggs, and distributors state that the weight of home-produced eggs as a whole has declined noticeably in the past ten years. In the trade it is frequently stated to be due to the different class of fowl now kept, the prevalence of the White Wyandotte and White Leghorn being frequently mentioned as mainly responsible, owing to the comparative smallness of their eggs. We agree with the comment that, in general, it may be said that size of eggs is less a question of breed than of the intensity of production. Within certain limits this is true. That size of egg is a most important factor we need hardly say, but the question that arises—and it is one which has never yet been fully discussed—is as to whether a hen producing an average of 200 eggs, weighing 1⅞ ozs., is more economical than one which produces from 160-170, averaging 2 ozs. in weight. In some areas it is stated that the standard weight has been maintained. This is stated to be the case in Cumberland, Lincolnshire and the Home Counties, but in certain other counties many complaints have been received of the smallness of the egg produced, and the statement is also made that eggs from poultry farms weigh less on the average than eggs produced on the general farms. That we can fully appreciate and know to be true.

TESTING.

An interesting chapter on Testing follows, and we turn now to views expressed by a large auctioneer in the West Country. He states :—

> "As salesmen we know for a fact that grading pays, and for some months past we have graded eggs into three classes ourselves—'special' eggs (eggs of good size, deep brown in colour and perfectly clean), 'ordinary' (2-oz. eggs, mixed, samples, thin shells—in fact, the average egg one might expect from a dairy), and 'pullets' (all smalls under 2 ozs.)."

Now this question as to whether grading pays or not has been frequently disputed, and we may say fairly definitely that it can never pay unless there is co-operation between the producer and the distributor. Complaints frequently reach us to the effect that if eggs are sold by auction there is no advantage to the producer in grading. Only yesterday a member of the S.P.B.A. called, who marketed his eggs at a certain Auction in the West Country. Actually on one and the same day specially-graded eggs, graded to 2¼ ozs., realised a lower price than pullets' eggs ungraded. This, because of the practice of auctioneers to first put up a small consignment, then inviting some of the large buyers to bid for six or seven boxes in one lot. This is bad practice in two ways ; in the first place, a graded egg never fetches its fair price, and in the second it prevents the small buyer from competing, and the large buyer regulates the price. So the producer actually suffers in two ways. We know this is very common practice throughout the country, and it is one to which attention will be drawn at the Marketing Conference. It is remarked that a letter has been addressed by the Northern Council of Grocers' Association to an important producers' marketing organisation as follows :—

> "At a meeting of my Council yesterday a strong protest was raised about the non-grading of English new-laid eggs. Continental and Irish eggs are now packed according to weight, and, in the interests of the trade, we shall be glad if some scheme can be introduced."

Comment is made on the fact that one of the Lancashire Societies in the month of May, 1924, could not meet the demand for grade 1 eggs at a price of 1s. 8d. per 120 above that of grade 2 from the supplies available. The percentage of supplies during that week were :—

Grade I.—8 per cent.
Grade II.—87 per cent.
Grade III.—5 per cent.

The following suggestions are made for National weight-grades for fresh and preserved, including cold-stored and home-produced eggs :—

	Weight per 120 eggs.		Minimum egg weight.
	Nominal. lb.	Actual lb.	oz.
Specials ...	17	16½ to 17	2½
Standards ...	15½	15 to 15½	1⅞
Smalls ...	14	13½ to 14	—

NATIONAL SCHEME FOR MARKING HOME PRODUCE.

Suggestions are made as to the scheme for marking home produce which could be framed on the lines of the Dutch Butter Control, the object of which was to protect Dutch butter makers from the damage done to their industry by the sale of margarine as Dutch butter. The object of the egg control would be to protect the British producers of new-laid eggs against having the market for their produce spoiled by sellers of home-produced eggs of inferior quality.

The principle of the Dutch system is voluntary control. It is recognised, and, to some extent, assisted by Government, and its strength lies in its unofficial character.

It is suggested that any organised control of egg producers in this country might be preferably instituted and managed entirely by those interested in the production, and possibly also in the distribution of first-quality home-produced eggs. The main point here is the penalty for non-compliance with the rules, and this would require in the first instance :—

(1) That members should not sell any eggs with the mark applied to them unless they had been laid within a certain number of days.

(2) That an additional mark indicating, but not stating, the date of sale should be applied.

A confidential mark indicating the date of sale would be necessary, both as a check on the producers and for his protection. The guarantee of the committee would not, of course, involve any local liability.

Particulars of rules of one of the Belgian co-operative societies are given. For the first offence a fine of two good eggs for each bad egg is imposed ; for a second offence, five good eggs for each bad egg ; for a third offence, eight good eggs for each bad egg ; for a fourth, expulsion. We believe that in Denmark a heavier penalty than this is imposed in the co-operative societies, and we must agree that the weakness of our co-operative and egg collecting societies in this country has been that the rules have never been stringent enough, or else the societies have lacked the courage to enforce them. However, as we have said before, we do not believe that co-operative societies on a large scale are ever likely to be a success in this country.

TRANSPORTATION.

There is a very interesting chapter on Transportation, and we find that the cost of sending a consignment of 1,200 eggs to London via Rotterdam is 4/1½ ; via Amsterdam, 3/10½ ; or less than ½d. per dozen. Competition between shipping lines accounts for these low figures. However this may be, it is clear that on the average eggs from the interior of Holland reach London, by rail and sea, at substantially less cost than eggs from the centre of this country. Of course, due regard must be paid to the fact that the consignments of home produce are usually of a small consignment when put on rail. From the interior of Belgium the cost of sending eggs by rail and sea transport to Spitalsfields Market, via Harwich, works out at 5/- per case of 1,200, or slightly more than ½d. per dozen.

We much regret that space will not permit us to make further comment, and if we may be allowed to do so we should like to take this opportunity of congratulating the Ministry on this very excellent book. It is outspoken, practical, and explains the marketing problem in a clear and very concise manner.

We can confidently recommend it to all our readers, and can assure them it will well repay perusal. No one who desires to study the question of marketing and improve the marketing of the English egg should fail to obtain a copy. It can be obtained from H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2, or through any bookseller, price 1/6.

MIDDLESEX AGRICULTURAL EDUCATION COMMITTEE.

COUNTY LAYING TRIAL, 1925-26.

Report for Third Period—December 10th, 1925, to January 6th, 1926.

The weather this month has again been severe, frost, snow gales and rain having prevailed throughout the period. Fortunately the site is well drained, and has kept dry; water has not at any time been lying, nor has the ground become muddy. The flock has come through well, and only one case of cold is recorded viz., No. 32: Hospital 22nd to 26th.

A few birds have not yet finished moulting, and one or two new instances of neck moult have been noted. In all ten pullets have been in moult during the period.

The only cases of broodiness were slight, and short confinement to the coop cured No. 74 (three days) and No. 123 (four days).

There has been a very marked improvement in egg production, the total number of eggs laid during the period being 1 729, a daily average of 61.75.

Many more pullets have come on to lay, but there are still 13 birds that have not contributed to the egg basket. In spite of the increase of 1/16oz. on all grades the proportion of special and first grade eggs has been well maintained.

The smallest daily yield of eggs was 44 on December 10th, and the highest 76 eggs on December 31st.

The leading pens with eggs and points respectively in each section to date are as follows:—

Section 1a. Light Breeds.—Miss Elvidge (W.L.), 146, 1416; W. Poupart (B. Bresse), 130, 1226.

Section 1b. Heavy Breeds.—Sir J. Fitzgerald (L.S.), 218, 2257; E. Fownes (W.W.), 219, 2003.

Section 2. Teams.—Hounslow, 156, 1587; Tottenham, 131, 1376.

Section 3. Single Birds. Light Breeds.—J. N. Williams (W.L.), 55 511; R. W. Baker (W.L.), 52, 456.

Heavy Breeds.—F. E. Robinson (W.W.), 44, 480; C. G. May (W.W.), 49, 440.

Correspondence—Continued

HEAVY VERSUS LIGHT BREEDS.

To the Editor of "Eggs."

Dear Mr. Newman,—May I put my "spoke" in on the Heavy v. Light question?

Mr. V. G. Youens says, "It is not fair to put one Leghorn against one R.I. Red, but rather to take them as a flock."

Surely this is not the way to get down to hard facts on costs and results?

We MUST consider the individual on her particular merits, for upon the individual is the future of poultry farming dependent.

Let us reconstruct Mr. Youens' figures as (in my opinion) they should be :—

		£ s. d.
100 R.I. Red produce 160 eggs each		133 6 8
100 hens sold at 3/6 each		17 10 0
Profit on 100 cockerels at 2/-		10 0 0
		160 16 8
Less rearing 100 pullets to laying age	£30 0 0	
Feed for 12 laying months at 12/- ...	60 0 0	
		90 0 0
		£70 16 8
100 Leghorns average 160 per bird		133 6 8
100 hens sold at 1/6 each		7 10 0
		140 16 8
Less loss on 100 cockerels at 9d. each	£3 15 0	
Rearing 100 pullets to laying age at 5/-	25 0 0	
Feed for 12 laying months at 10/- ...	50 0 0	
		78 15 0
		£62 1 8

I do not agree that a really good flock of Leghorns lay more than a really good flock of R.I. Reds or Wyandottes. So really, on the surface, there is very little in it either way—an extra £8 15s. to the credit of the heavies.

But I can do better than this. 3/6 per bird for fat hens does not satisfy me, and I actually sell **all** the year round at 5/- per bird. Another 1/6 per bird to the credit of my heavies.

Another point. Heavies produce more eggs when prices are high—actually it makes almost 1/8 per egg better price on their output—another 1/8 per bird.

I keep heavies AND lights. More of the former, because they are very profitable; some of the latter, because they give me eggs when their more bulky sisters have a motherly feeling.

Yours faithfully,

A. C. BYGRAVE.

AN EGG MYSTERY.

To the Editor of "Eggs."

Dear Sir,—Had the person who sent the information to the "Aberdeen Press" examined the boxes (which he saw at the station, addressed to farmers and stamped on the end, "Packed in Denmark") he would have found them to be empty. I have used boxes of this description for years without it ever occurring to me that people seeing them might think I bought imported eggs for the purpose of re-sale as English eggs, neither have any of my customers ever pointed it out to me.

I can buy these egg boxes, holding 30 dozen eggs, with cardboard divisions, complete for sixpence each. In fact, only last Friday I bought two good sound boxes at the above prices, marked on the end "Argentine Produce." There would be no gain to the poultry farmer to sell Danish eggs as English. Prices are approximately the same for Danish as for English, by the time he paid carriage both ways he would be out of pocket.

This is a case where you must not believe all you imagine you see.

Yours faithfully,

W. HALL.

ANSWERS TO QUERIES—Continued.

"Salopian" (Market Drayton) sends 60 eggs for examination. They were part of a lot put in two Hearson incubators. The machines have hatched out well for the past three seasons. The temperature of the room was about 60. The thermometers showed 104 all the time. Out of 200 eggs only 20 chicks hatched. The only difference between other seasons and this was that one portion of the incubator floor was very wet through, a damaged roof during the storm, but neither on nor under the machines—two or three feet away. The eggs were bought. Examination of the eggs revealed that 51 were infertile, seven addled, and two contained fully-developed chicks. Obviously the eggs were at fault. May I take this opportunity of requesting that some of my correspondents before they send eggs for examination, will test them for infertility themselves. This would save them considerable trouble.

W. F. (Pudsey) sends a sample of oat feed, half of which has been passed through a sieve, and the other is in its normal state. The latter contains a good deal of husk, and some of the hairs of the plant. That which has been passed through the sieve would have a fair feeding value. although the price (14s. per cwt.) is rather excessive I would not care to use this inferior product for chicken rearing when I could get a sample of S.P.B.A. Sussex ground oats free on rail for 13s. per cwt.

M. R. N. (Wantage) asks if six weeks is the correct age to remove chicks from the brooders to the rearing houses There is no question of correct age; it is a matter of common sense. Obviously to remove six-weeks' old chicks from the brooder to a colony house, with the weather we are now experiencing, would be madness. There can be no rule of thumb methods. It is a question of using one's judgment. (2) I am sorry I cannot answer her question as to the cause of the death of the three chicks; all sick chicks mope. They would do so if they had B.W.D., chill, coccidiosis, indigestion, or from any other cause, and I am not able to judge as to whether the feeding is at fault because I have no details

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

McDonald, F., Holm Mills, Inverness-shire.
Mansfield, Mrs. J., "Kynance," Noak Hill Road, Romford, Essex.
Colin, H. P., Blakesley, Wisborough Green, Horsham.
Massey, Mrs L. A., Cranford, Chester Road, Grappenhall, Warrington.
Leon, R., Haldon, North Road, Hythe, Kent
Adlam, J. A., Kiln P.F., Thrandeston, Diss, Norfolk
Hardman, T., 35, Hamer Street, Radcliffe, near Manchester.
Owen, F. T., 72, Brainerd Street, Tue Brook, Liverpool.
Hamilton Smith, Mrs. M., Clenterty School House, Gamrie, Dubford, Banff.
Pickles, P., Lower Slater Ing Farm, Hebden Bridge, Yorks.
Dickson, W. H., Grove Cottage, Far Green, Hawley Stoke-on-Trent.
Archer, W., Canning P.F., No. 471, Glascote, Tamworth.
Seldon, Mrs., The Cricket Hill P.F., Yateley, Hants.
Davies, J., 12, Penrose Place, Waverley Road, Woodhouse, near Sheffield.
Armstrong, Miss E. M., Glyn, Capel Curing, Bettws-y-Coed.
Cottrill, C., Peneraig P.F., Great Pinley, Claverdon, Warwickshire.
Bowker, S., Newfields, Wintertey, Sandbach, Chester.
Berry, T. W., The Bungalow, Grange Road, Ash Green, Ash, Surrey.
Galsworthy, H. J., Colden Corert, Colden Common, near Winchester, Hants.
Fane, Capt. A., Olives Manor, Wadhurst, Sussex.
Fane, Mrs., Olives Manor, Wadhurst, Sussex.
Hake, Major H. E. (O.B.E.), "Hillview," Radford Semele, near Leamington Spa.
Bacon, L. C., "Hylands," Hascombe Road, Godalming, Surrey.
Picon, F., Yamato, Nevendon Road, Wickford, Essex.
Nisbet, W. Selwyn, Hale Farm House, Breamore, Salisbury.
Quilton, B. S., Longhill, Quedgeley, Glos
Closs, G. P., Mathern, Longford, Glos.
Fowler, F. E., Hartpury, near Maisemore, Glos
Dixon, A., Black and White House, Upton St. Leonards, Glos.
Hawdsley, H., Bondend, Upton St. Leonards, Glos.
Clark, Miss M., Southend Villas, Newent, Glos.
Sisson, F., Moreton Hall Farm, Preesgweene, near Oswestry.
Edmondson, Townley, Moreton Hall Farm, Preesgweene, near Oswestry.
Waterworth, J., Vine P.F., North Duffield, Selby, Yorks.
St. Clair Colson, J., St. Agnes S.O., Cornwall
Kempe, Major H. F. C., Three Ways, Bashley, New Milton, Hants
Farnworth, W., Tithebarn P.F., Heapey, near Chorley, Lancs.
Butler, W. E., The Laurels, Grafton Underwood, Kettering.
Walker, A. M., Postwick Hall, Norwich, Norfolk.
Tregear, F., Weelington Villas, Stopford Road, St. Helens, Jersey.
Griffith Williams, K. B., c/o J. R. Williams, Westanger, Godalming, Surrey
Wilkinson, T. A., Dorrington Pedigree P.F., Dorrington, Shropshire
Lomas, F. C., 34, Mardy Road, Mardy, Glam.
Newman, Miss E. M., Finstock P.F., Knockholt, Kent.
Penney, Mrs. F. A., Santa Rosa, Sevenoaks Road, Chelsfield, Farnborough, Kent.
Knights, G., Post Office, Helmingham, Stowmarket.
Wills, G. R., Fletchwood P.F., Totton, Southampton.
Horrax, C. B., Fletchwood P.F., Totton, Southampton.
Powell, Mrs. E., Plas-y-Bryn, Newtown, Montgomeryshire.
Pope, W. H., The Stone Pits, Dinton, Aylesbury, Bucks.
Wilson, A., 97, Bankhead Road, Bucksburn, Aberdeenshire.
Frost, H. H., Layer Mills, Layer-De-La-Haye, Colchester.
Tingle, E. B., 68, Stamford Road, Kettering.
Ruse, H. J., Wicken Mill, Newport, Essex.
Stoddart, R. T. W., The Poultry Farm, Buckden, Hunts.
Mitchell, C. T., Poultry Farms, Ltd., Empingham, Stamford.
Clark, Mrs. P., Rowmill P.F., East Lane, Brumby, Scunthorpe, Lincs.
Goodliffe, T., Tallington Station, Stamford, Lincoln.
Stewart, Miss I., Creeve, Loughgilly, Co. Armagh, Ireland.
Darby, W., Eastling, Norfolk Street, Boston, Lincs
Kerr, J., Block K.5.R., County Houses, Larkfield, High Blantyre, Lanarkshire.
Sheil, Miss K., Munster Institute, Cork, Ireland.
Andrews, Mrs. C., Carnesure Farm, Comber, Belfast.
Mills, E., Crawley P.F., Uley, near Dursley, Glos.
Baron, Mdlle Le, Ferme Avicole Des Alouettes, Les Horgnes, Par Jouy-Sous-Thelle, France.
Lunt, F. J., Manor Farm, Hale Bank, near Widnes, Lancs.
Davis, R. L., Barbary P.F., Park Hall, Gobowen, Salop.
Hitchins, J., B.O.C.M., Hull.
Haslett, Mrs., Holme Dale P.F., Woodborough, Notts.
Hart, F. B., Beulah P.F., Cuckoo Lane, Penn.
Wood, T. P., Boningale, near Wolverhampton.
Reay, Capt. T. P., M.C., Froome Manor, Bishop's Froome, Worcester.
Arnold, W., Avondale, Wood Road, Codsall, near Wolverhampton.
Plumb, W., Homeford, Springfield Road, Walmby, Erdington, Birmingham.
Crowther, Miss, "Woodleigh," Wylde Green, Birmingham.
Prescott, A. G., 3, Hartledon Road, Harborne, Birmingham.
Edgar, G. H., The Thatched House, Solihull, Warwick.

BARROW AND DISTRICT EGG-LAYING COMPETITION.

The fourth annual single bird twenty weeks' laying test, organised by the Barrow and District Utility Poultry Society, and managed by Mr. G. B. Tootall, Thorncliffe Poultry Farm, Barrow-in-Furness, has completed the third period of four weeks. Mr. Tootall reports an increase of 128 eggs over last month, with a noticeable increase in size. The feeding is unchanged, and all the birds are healthy. One White Leghorn, one Rhode Island Red, and three Old English Pheasants have yet to lay their first egg. Note—Small breeders can win in open classes as well as their own.

Figures are Eggs and Points respectively.

Class 1. White Wyandottes.—Hon. M. Cross, 19, 190; Cumberland and Westmoreland Farm School, 18, 178; Hon. M. Cross, 17, 166.

Class 2. White Leghorn.—J. J. Hardy, 19, 188; J. Graham, 17, 164; J. Tyldesley, 16, 150.

Class 3. Any Other Variety, Heavy.—Robt. Atkinson (R.I.R.), 18, 180; Geo. Mills (R.I.R.), 16, 160; Percy Noble (R.I.R.), 16, 160.

Class 4. Any Other Variety, Light.—Hon. M. Cross (An.), 18, 180; A. Fawcett (An.), 16, 148; P. W. Davies (B.L.), 14, 138.

SMALL BREEDERS' CLASSES.

Class 5. Any Variety, Heavy.—Robt. Atkinson (R.I.R.), 18, 180; J. Graham (W.W.), 20, 164; J. Graham (W.W.), 18, 164.

Class 6. Any Variety, Light.—J. J. Hardy (W.L.), 18, 188; J. Graham, 17, 164; Jas. Akister (W.L.), 14, 140.

Leading for the three months.—William Howarth (R.I.R.), 688 points; J. Graham (W.W.), 548; Hon. M. Cross (An.), 524.

CLITHEROE AND DISTRICT UTILITY AND FANCIERS' POULTRY SOCIETY.

Six Months' Single Bird Laying Test, 1925,26, held at Henthorn Poultry Farm, Clitheroe, under the supervision of Mr. A. W. Woodford.

THIRD MONTHLY REPORT.

In the first 12 weeks eggs over 2 oz. receive 9 points; 1¾ ozs. to 2 ozs., 8 points; under 1¾ oz., 6 points. In the second 12 weeks, over 2 ozs., 7 points; 2 ozs., 6 points; under 2 ozs., 4 points.

Heavy Breeds.—J. R. Jackson, Downham (W.W.), 534 pts.; A. Snowden, Crosshill (W.W.), 512; P. Warren, Entwistle (R.I.R.), 487; T. Dobson, Inglewhite (B.O.), 456; J. H. and W. Brayshaw, Keighley (W.W.), 449; H. H. Bradshaw, Fleetwood (W.W.), 440.

Light Breeds.—Miss Greenwood, Worston (W.L.), 442 pts.; T. Bickerstaff, Clithero (W.L.), 354; P. Warren, Entwistle (W.L.), 347; T. Dobson, Inglewhite (An.), 312; J. Parker, Clitheroe (W.L.), 302; Major Aspinan, Pendleton (W.L.), 287.

Total eggs (84 days), 4,081; 176 birds. One bird died during the month, W.L. No. 79.

NORTHERN UTILITY POULTRY SOCIETY LAYING COMPETITION, 1925-26.

SECOND REPORT, Nov. 29th to Dec. 26th, 1925.

Winterly weather has prevailed most of this month, but not so severe as the previous four weeks. Snow has fallen several times, obtaining a maximum depth of seven inches on Christmas Day. Thaw set in on the 26th, and at time of writing snow and frost has entirely disappeared and the weather is much milder, and wet.

The health of the flock has remained excellent, not a bird being reported sick, although No. 165 White Wyandotte has died from inflammation of the bowels. The yield of eggs has remained steady, falling a little towards the end of the month—only to be expected after eight weeks of winter. Forty-six have so far failed to lay. A few fresh cases of moulting are noted, but no broodies so far.

DUCK SECTION.

All these competitors are in good health, but poor returns of eggs are coming to hand. Evidently frost and snow-covered ground is no help to them for egg production; No. 62 being the only duck to continue in lay for the eight weeks.

EGG PRODUCTION OF LEADING PENS

Figures are total points to date:—

Section No. 1—Championship (Ten Birds).—Leslie Williams, 225; Messrs. Longworth Bros., 169.

Section No. 2—White Leghorns.—Robert H. Fryers, 167; William Dugdale, 152; Richard Harrison, 142; F. C. Tomlinson, 137.

Section No. 3—White Wyandottes.—R. H. Aspden, 171; Bolton and Gardiner, 168; Arthur White, 166. Dr. J. E. Helm, 165.

Section No. 4—Any Other Variety (Non-Sitting).—K. A. Crawford (W. La B.), 97; Owen Rawlinson (B.L.), 85; Arthur White (B.L.), 69; James Stuart (B.L.), 64.

Section No. 5—Any Other Variety (Sitting).—E. A. Tingle & Son (R.I.R.), 189; Gilbert A. Leonard (B.R.), 155; Gettern Model Poultry Farm (B.R.), 144; Harold Turner (R.I.R.), 129.

Section No. 6—Small Breeders.—Mrs. Clara Egar (W.L.), 85.

Section No. 7—Crossbreds.—Mrs. Clara Egar (B.L. x L.S.), 72.

Section No. 8—Two Birds.—Mrs. E. McKeown (W.W.), 58; Eustace A. Wilkinson (W.W.), 55; Andrew Vasey (W.L.), 34; Misses Leason (W.W.), 33.

Section No. 9—Single Bird.—Crossgar Pedigree U.P. Farm (R.I.R.), 38; R. A. & A. M. Johnson (W.W.), 36; Gettern Model Poultry Farm (B.R.), 33; Miss R. K. Tallis (W.W.), 32.

Section No. 10—Local Section.—Richard Harrison (W.L.), 106; Albert Helliwell (W.W.), 104; Ernest Jackson (W.W.), 101.

Section No. 11—Ducks.—E. W. Putman (K.-C.), 39; Wilson Beattie (K.-C.), 35; G. H. H. Simmons (K.-C.), 31; Oscar C. Brown (K.-C.), 30.

Section No. 12—Single Ducks.—G. H. H. Simmons (K.-C.), 38; R. A. & A. M. Johnson (K.-C.), 18; W. E. Haycock (K.-C.), 11; Capt. A. St. G. Maxwell (K.-C.), 9.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 15th JANUARY, 1926.

GRAINS AND FEEDING STUFFS.—British wheat is in fair supply and cheaper at most markets, the average quotation being 12s. 6d. per cwt., as against 12s. 8d. for the previous week. Imported wheat is in little demand, and at Bristol and Hull prices have declined on the week, but elsewhere recent quotations are fully maintained. Home-grown barley generally meets a dull trade at late rates, except at Hull, where a reduction of 3d. per cwt. is recorded. Imported feeding barley also attracts little attention and is slightly cheaper at most markets. Oats are in small demand and generally cheaper, but at London English maintain recent prices. Maize meets a limited trade at lower figures, Argentine averaging 8s. 7d. per cwt. as compared with 8s. 10d. last week. Milling offals are mostly in quiet demand, and both bran and coarse middlings have become cheaper. Bran now averages about £8 and coarse middlings £8 2s. per ton, as compared with £8 4s. and £8 respectively a week ago. Maize meal also sells at lower prices, reductions ranging from 5s. to 7s. 6d. per ton being recorded. Oil cakes meet a slow trade, and cotton seed cake realises less money at London and Bristol, while linseed cake generally maintains recent prices.

MILLERS' OFFALS.—Bran (British): Bristol, £8 10s; Hull, £8 2s; Liverpool, £8 5s; London, £7 5s. Broad Bran: Hull, £9 12s; London, £9. Middlings:—Fine (Imported): London, £8 7s; Coarse (British): Bristol, £8 7s; Hull, £8 10s; Liverpool, £8; London, £7 10s. Pollards (Imported): Bristol, £6 17s; Hull, £6 10s; Liverpool, £6 10s; London, £6 12s. Rice Bran: Bristol, £7 7s; Liverpool, £7. MEAL.—Barley Meal: Bristol, £9 15s; Hull, £9 15s; London, £10 2s. Maize Meal: Bristol, £10 10s; Hull, £9 13s; Liverpool, £9 15s; London, £10. Maize Meal (S. African): Bristol, £9 7s; Hull, £8 10s; Liverpool, £8 5s; London, £8 10s. Maize Germ Meal: Hull, £9; London, £8 10s. Maize Gluten Feed: Bristol, £10 17s; London, £9 15s. Locust Bean Meal: Bristol, £9 15s; Hull, £10; Liverpool, £9 10s; London, £9 12s. Bean Meal: Bristol, £13 10s; Hull, £12 2s; London, £12 5s. Fish Meal: Bristol, £21 10s; Hull, £20 10s; Liverpool, £20; London, £20.

EGGS AND DEAD POULTRY.

Increasingly heavy offerings of eggs fail to attract much interest and British and best imported selections are reduced by 1s. 6d. to 3s. 6d. per 120 to stimulate sales. The best classes of dead poultry sell readily, but otherwise business is inclined to be quiet, although prices are about held.

Week-end Prices—Eggs (per 120): British, 23s 6d; Irish, 23s 3d, 22s 6d; Danish, 26s 6d, 24s 9d; Dutch, brown, 27s 3d, 26s 6d; Dutch, mixed, 24s 3d, 23s 0d; French, brown, 26s 6d, 25s 6d; mixed, 22s 9d, 21s 3d; Belgian, 23s 6d, 22s 3d; Italian, 22s 3d, 20s 6d; Egyptian, 9s 6d, 8s 9d; Lithuanian, 18s 0d, 17s 0d; Polish, 16s 6d; 15s 0d; Chinese, 13s 9d, 12s 6d; Russian, 15s 3d, 14s 0d; Australian, 18s 3d, 17s 0d; Argentine, 14s 6d, 13s 3d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 8d, 1s 6d; Irish, 1s 4d, 1s 3d; Others, 1s 6d, 1s 4d. Ducks, 1s 6d, 1s 4d. Geese, 1s 3d, 1s 1d. Turkeys, 1s 8d, 1s 5d.

EGGS.

Per Doz.—Ashford: First, 2s 0d; Second, 1s 9d. Birmingham: First, 2s 4¾d; Second, 2s 4¼d. Bridgwater. First, 2s 4½d; Second, 2s 2d. Chelmsford: First, 2s 0½d; Second, 1s 9d. Colchester: First, 2s 3d; Second, 2s 1¼d. Doncaster: First, 2s 10d; Second, 2s 8d. Dorchester: First, 1s 11½d: Second, 1s 10½d. Exeter: First, 2s 0d; Second, 1s 10d. Hereford: First, 2s 3d. King's Lynn: First, 2s 4d; Second, 2s 2d. Llandilo: First, 2s 3d; Second, 2s 2d. Mold: First, 2s 9d; Second, 2s 6d. Montgomery: First, 2s 3d. Newport (Mon.): First, 2s 6d; Second, 2s 4d. Norwich: First, 2s 7d. Oswestry: First, 2s 3d. Penzance: First, 2s 0d; Second, 1s 11d. Saffron Walden: First, 2s 3½d; Second, 2s 1¼d. St. Ives (Hunts): First, 2s 3d; Second, 2s 1d. Salisbury: First, 2s 2½d; Second, 2s 1d. Skipton: First, 2s 6d. Truro: First, 1s 10d. Welshpool: First, 2s 2d. *Carlisle: First, 2s 6d. *Derby: First, 2s 7d. *Ipswich: First, 2s 6d; Second, 2s 3d. *Lincoln: First, 2s 3d. *Shrewsbury: First, 2s 6d; Second, 2s 3d. *York: First, 2s 6d; Second, 2s 5d.

FOWLS.

Per lb.—Birmingham: First, 1s 3d; Second, 10d. Doncaster: First, †6s 0d; Second, †5s 6d. Exeter: First, 1s 5d; Second, 1s 3d. Hereford: First, 1s 3d. Llandilo: First, 1s 7d; Second, 1s 4d. Newport (Mon.): First, 1s 6d; Second, 1s 2d. Truro: First, 1s 4d. Welshpool: First, 1s 6d.; Second 1s. 3d. *Derby: First, †6s. 6d.; Second, †3s 6d. *Ipswich: First, 1s 8d; Second, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 4d. *York: First, †6s 0d; Second, †5s 6d.

(Continued at Foot of Next Column).

"Eggs."
The Official Organ of the Scientific Poultry Breeders' Association.
Wednesday, January 20th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

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NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

LAINDON LAYING TEST.

Second Report.

Section 1. Five Pullets (Light Breeds).—1st, Rowland Cooke (W.L.), 123 eggs; 2nd, L. J. Willis (An.), 103; 3rd, E. V. Bazing, 104. Monthly Certificate: R. Cooke.

Section 2. Five Pullets, Heavy Breeds. — 1st, L. Potter (R.I.R.) 123; 2nd, Mrs. Fowler (R.I.R.), 101; 3rd, Rowland Cooke. 84. Monthly Certificate: Mrs. Fowler.

Section 3. Single Bird (Light Breeds).—1st, G. L. and H. B. Gibson (W.L.), 29. 2nd, S. Stock (B.L.), 24; 3rd, H. Maycock (W.L.), 21. Monthly Certificate: Charles Newman.

Section 4. Single Bird (Heavy Breeds).—1st, J. A. Howarth (W.W.), 44; 2nd, Miss Grubbe (R.I.R.), 39; 3rd, H. Bush (W.W.), 35. Monthly Certificate: J. A. Howarth.

Section 5. Gift.—1st, W. Dillnog (R.I.R.), 39; 2nd, E. Mybrea, 33; H. Maycock, 29. Monthly Certificate: Rowland Cooke. First-Class Certificate: Mrs. Fowler.

DUCKS.

Per lb.—Birmingham: First, 1s 3d; Second, 1s 0d. Doncaster: First, †7s 0d; Second, †6s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 3d. Llandilo: First, 1s 7d; Second, 1s 4d. Welshpool: First, 1s 6d. *Derby: First, †6s 6d; Second, †4s 0d. *Ipswich: First, 1s 6d. *Shrewsbury: First, 1s 6d; Second, 1s 4d.

*At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, JANUARY 27th, 1926.

Editorial.

COCCIDIOSIS.

In recent articles on the intensive system, we have suggested its adoption by breeders as the most likely means of combating the terrible ravages of Coccidiosis. Many of our readers have written us on the subject, and have intimated their intention to give the system a trial for this specific purpose, and their reports will be awaited with interest. It is acknowledged that it is extremely difficult to treat infected land successfully. Even the application of two tons of lime to the acre has failed to effect the desired end, and where chicks have been run over the same ground the succeeding year, the losses in some cases have been as heavy as before it was treated. This, however, is by the way. Our object in referring to the problem is to draw attention to an article in the "Poultry Tribune," entitled "A Control for Coccidiosis."

The article is by Mr. P. C. Dane, and it is interesting to note that he not only remarks on the heavy mortality incurred, but of the effect upon a flock in which numbers have survived an attack. Not only are survivors poor specimens of their kind, stunted in growth, and anaemic in appearance, but they are carriers of the disease.

Authorities on Coccidiosis generally remark that chicks which are attacked after six weeks old possess greater resistant power, and do not fall victims to the disease, but we venture to say that they might insist more strongly on the fact that these birds are but **survivors**; that they have not **recovered** from the disease, and are a standing menace to the rest of the flock.

The writer comments on the advice, very generally given, to remove chicks to new ground, and remarks very truly that this is often impossible, but his suggestion that this advice is but a relic of the middle age, when the inhabitants of plague-ridden cities fled to the hills, is scarcely warranted. In any case, it is better to run away from a disease germ if you have no weapons with which to fight it. The commercial poultry-keeper cannot afford to become an experimentalist, and to continue to attempt to rear chicks on infected ground is hardly sane policy. Mr. Dane submits that the only sound and practical policy is to fight the germ in its lair. Certainly this is the idea that would appeal to most people, and we believe that disease experts have attempted to do so, only they have apparently looked for the lair in the soil, while, as we understand him, Mr. Dane believes it is in the chick's intestines. He is describing a method of control suggested by the well-known authority, Dr. J. R. Beach, of the University of California Experiment Station.

Mr. Dane says:—"His recommendations are based upon a series of carefully-checked controlled experiments, as well as upon a series of field trials, conducted on commercial poultry farms, having only average brooding facilities."

We should hardly have called Mr. Dane's own experience sufficiently convincing, had it not been backed by these controlled experiments of Dr. Beach, and even now we should like a little more evidence.

Briefly, we may say that the success in fighting the disease is attributed to the following mash, which was kept before the chicks all day long:—

200 lbs. dry skim milk (baker's grade).
150 lbs. ground yellow corn.
100 lbs. ground barley.
50 lbs. shorts.

Every few days the mash fed in the mash troughs in the morning was weighed, and whatever was left in the troughs at night was again weighed to determine the exact amount of mash consumed. Then in the morning the chicks were allowed a feed of grain, equal to one-third of the mash consumed.

Now we come to Mr. Dane's experience, or, as he calls it, his field test:—

> Two thousand four hundred and fifty chicks were placed in the brooder house on June 12th, and it is to be noted that the writer remarks that breeders in the Petaluma district are unanimously of opinion that, on the average, the June-hatched chick possesses less vitality than chicks hatched in any other month of the year, an assertion in which breeders on this side will concur.
>
> "Chicks had been raised in the same house and surrounding yards for many years, and long ago the coccidiosis germ had had homesteded in the place, and nothing I could do would make Mr. Bug leave his chosen haunt."
>
> The total mortality up to and including the 20 July (over five weeks) was 5.50 per cent.

On the 21st there were 11 deaths during the 24 hours. Mr. Dane began to be worried, one might suggest unnecessarily so, as he had had bitter experience of coccidiosis previously. He thought of giving the remainder of the chicks a mild dose of Epsom salts, but refrained from doing so on advice and instructions to leave all drugs alone, keep the house reasonably clean, and never let the chicks see the bottom of the mash troughs. To use Mr. Dane's own words, "And, by the Holy Moses, it worked. The 22nd of July showed no deaths, the 23rd seven, the 24th three, the 25th two, and the 26th one; and the crisis was passed with a mortality loss from coccidiosis of slightly over one per cent."

Summarising his experiences Mr. Dane says :—

> "The outstanding factors in this test were: Brooder houses and yards were loaded with coccidiosis germs, with chicks brooded there before. When they became affected with the coccidiosis germ it gave them no set-back, the consumption of food and water continued in the same ratio as before, and the death loss from this cause was very slight."

As we said before, we do not think Mr. Dane's test was in any way convincing, neither can it be described as a test, for there was no control. His deductions are based on the slight mortality and the fact that the houses and ground were supposed to be loaded with germs. If it had not been for the controlled experiments of Dr. Beach, we should not attach great importance to the article by Mr. Dane.

As for the ground loaded with the coccidia, we will relate an actual experience of our own. In the the spring of 1915 an attempt was made to rear a very large number of chicks on an acre of ground. All went well until the third week, when the mortality became alarming; in less than six weeks over a thousand chicks were lost. It was not very easy in those days to get information of a reliable character on the disease, and little was known of coccidiosis. The losses were very heavy before a correct diagnosis could be obtained. However, the real point is, that the following year, without any treatment of the ground, or any special precautions, a large number of chicks were successfully reared on the same spot without any abnormal mortality. There is one other point with regard to Mr. Dane's test. No symptoms of the disease appeared by his own showing until the chicks were five weeks old, and we know that the chicks' resistant power to the parasite is greatly increased after the sixth week.

The very high percentage of dry milk used would render the cost of the mash prohibitory on this side, unless it can be shown that a very much smaller percentage can be used with success. Later Mr. Dane remarks on the wonderful development of the chicks fed on this high percentage of milk. The remarkable development of milk-fed chicks we have had proof of in the Wellingham experiments, but we have been able to demonstrate there that 5 per cent., if fed with other suitable constituents, will give equally as good results as 33 per cent.

(Continued at Foot of Next Column).

Modern Poultry Feeding.

By TOM NEWMAN.

LONGEVITY AND EGG PRODUCTION.

The following very interesting letter I have taken from the "American Poultry Tribune." It is interesting to me, because some eight or ten years ago I drew attention to the mistaken advice given by writers to feed the moulting hen heavily with nitrogenous foods, and myself advised that maize should be given before and during the moult; that a little care should be exercised at the time the moult was completed, and before the birds came into production again, as there would be a tendency with individuals to put on internal fat.

The experiment has confirmed the opinion I expressed ten years ago. There is no doubt that many individuals "hang" in the moult because of underfeeding or the lack of the necessary body fat to nourish the feather.

It will be noted that the writer remarks on the fact that many of these selected hens with high records went through the moult very quickly and came into lay again in the latter part of November and first part of December, and that lights were a great aid in bringing them back into lay. This is of importance, as it indicates that the additional food consumed is a great factor, not only in bringing the birds into production again, but also assisting materially in the growth of the feather.

While on this point, may I digress a little for a moment in reference to the recommendation I made in these columns two years ago on feeding maize in troughs as a means of avoiding the neck moult of the early-hatched pullets? The President of the S.P.B.A. (Mrs. Hunter) informs me she has received a letter from one of her customers who hatched a number of Wyandotte eggs on Boxing Day of 1924. These birds very early came into production, and she had recommended him to follow my advice and test the feeding of maize in troughs to avoid the moult. In this case the experiment proved completely successful. The birds are still in full production, and during November and December many of them put up individual records of 20 eggs and over per month :—

> "At the Nebraska College of Agriculture poultry plant it has been determined that hens laying over a period of two or more years are

more profitable than raising a new lot of pullets each year to replace all of the older hens. For instance, developments disclosed that breeding into the flock the tendency to moult late and quickly was important, and that proper feeding of lots of yellow corn in the scratch and mash rations would hasten the moult because of its great feather-building properties. Fully three-fourths of the scratch ration should be of yellow corn and one-fourth oats.

The real significance of this is to be found in the following short analysis. It is estimated that it requires on the average about 1.50 dollars to raise a pullet to laying age. It requires about 30 cents to feed a hen properly through the moult. She will resume laying in about three or four weeks. Her eggs will be of standard size and shape, and of good shell texture immediately. Such eggs can be sold as firsts right off the nest. But take pullet eggs—they are small during the first three or four weeks of laying. Pullets are very heavy eaters. All of this counts very heavily against the income from them during the first year. By keeping these pullets through their second and even third year, the income of the poultry raiser can be increased materially. The tendency to produce over a period of years can be bred into the flock.

In this matter of longevity with profitable egg production, the Nebraska station has been doing some merited work. Many 200-egg hens during their pullet year proved to be more profitable during their second year of production with a record of 150 eggs. During the second year only the feed costs plus the incidentals were figured against them. The rest was a clear profit. Most of the hens went through the moult quickly, and came into laying again the latter part of November and the first part of December. Lights were a great aid in bringing them into laying. These hens were in excellent condition, and had regained all their flesh and colour. The fact that these were of the White Leghorn variety may have had something to do with the success of the outcome.

This revelation should provide a new goal for our 300-egg hen poultrymen. They are breeding them to lay 300 eggs per year now. In the future, hens that will lay 300 eggs over a period of years will be the goal. It can and will be done. Greater production, fewer hens, and better feeding and breeding methods which rest upon a solid, scientific foundation, are the things that the modern poultryman is striving for."

The Essentials of Commercial Poultry Farming.

A Lecture by **JOHN H. DOWDEN.**
Given at Bingley Hall, Birmingham.

On receiving this invitation to come North and lecture, I was in somewhat of a quandary as to the choice of a subject. The Poultry Press is pouring out a voluminous flow of interesting and instructive articles, and all aspects of the industry seem to be treated most adequately in this way. Lecturers, too, are continuously giving us the benefit of their views and experiences, yet to those who are really interested, there is always a different point of view which may profitably be presented.

One of the reasons why the Poultry Industry is so fascinatingly attractive is because of its many complex phases and problems, which confront us, and call for solution almost daily throughout the seasons.

When speaking to such an audience as I have the pleasure of addressing to-day, I endeavour to visualise the circumstances and conditions under which they work, in order to present to them some helpful and practical advice, but undoubtedly the poultry farms represented in this audience are situated North, South, East, and West, and, therefore, whatever I have to say would not be equally applicable to all. Some may be farming on a large scale commercially, whilst others may be the proud possessors of a single pen of birds. Yet with all these points in my mind, I can still hope to convey, in a few words which I propose to speak, some essentials for successful poultry farmers which will be applicable to all.

The average poultry-keeper is far too prone to seize eagerly upon any and every scrap of advice given from platform or press, and to put it into practice without once pausing to consider whether it is applicable to his own case, and this tendency, if freely indulged in is bound to lead to endless trouble. By this I do not mean to deprecate the value or helpfulness of all that has been said and written in connection with poultry-keeping. It is merely my wish to indicate that before acting on any advice promiscuously given, it is necessary to consider well how far, if at all, it applies to one's own case

Do not accept dogmatic statements respecting methods of management or systems, just because it is easy to do so, but think matters out for yourselves and feel your way. Take for instance, the question of housing. Some of you may have farms in the bleak parts of the North, whilst others may be operating in sheltered parts of Devonshire. Straw houses may be admirable for the latter conditions, but the cosy Lancashire cabin would doubtless find favour with the thinking poultryman of the North. Many other instances could be cited, but I think my point will be clear for the necessity of applying one's own judgment in all matters.

We are frequently told that nothing succeeds like success, the suggestion being that a successful man has only to sit still to become increasingly so, and consequently more wealthy, but this must not be taken too literally. It is true that it is easier to succeed after a good start has been made, but success can only be achieved by hard work, by brains, and by a capacity for seizing opportunities. A man who has by his own hard work and initiative made good his financial position, can proceed to consolidate it, but a fool who is left a fortune is as likely as not to lose every penny of it.

It may seem to you that I have wandered somewhat from the sphere of poultry culture, but our industry can be compared to most others, in that personality and acumen are the vital factors which count. Most of the successful men in commerce have built up their businesses from very humble beginnings. They have done so because they had vision, a broad view of the essential factors, and enterprise allied with a capacity for taking infinite pains.

Let us deal with vision. Every poultry-keeper should have a plan before he starts. He must look ahead, and visualise under whatever circumstances he may be working, the ultimate issue which he desired to attain, and then, even if it takes years, persevere through fair and foul weather. It is still a debatable point whether man makes the circumstances or circumstances makes the man. By having vision a man may place himself in the former class and mould circumstances to his purpose. The broad view of essentials is necessary, as the man who thinks in a small way will always remain a small man, whereas with a broad view, one becomes more fitted to grapple with big issues.

Of even more importance than vision or breadth of mind is enterprise. Do you think you have a good market for your merchandise? Do you fancy that your stock is good enough? Is your turnover satisfactory? Your office recording system up-to-date? Are you making your purchases in the most economic market? Is your farm run on the right principle? Is it possible to enlarge its scope? All these, and many more of the aspects of the industry will be present in the mind of an enterprising poultry-keeper, for each must have a direct influence on the well-being of his business. Do not, above all things, settle down to a state of satisfaction, but, with Thomas Carlyle, for ever have a righteous discontent. You will notice that I have joined hard work with enterprise. Hard work is enjoyable to those who are happily circumstanced, and yet it is still hard work, for unless a man is prepared to put in his very best efforts for long hours at a stretch, he never becomes truly *au fait* with his business.

The same abilities are necessary for the continuance of success as for its achievement. The successful man is he who has made a habit of work, and it is precisely for this reason that he continues to be successful. The habit has become so ingrained in him that he continues to work hard, after his original goal has been reached, and goes from success to success.

Non-essentials will crowd in upon us, and take up our time, sap our energy, distract our thoughts, pretend they are important, deceive us and mightily rob us of time, money, peace and progress. Yet it is possible to have our purpose so clearly fixed in mind that we readily detect that which is non-essential.

I must not forget to mention the art of salesmanship. This is one which it is most important to cultivate. The qualities which go to make up salesmanship, courtesy, tact, knowledge of goods, judgment, accuracy, all these must be acquired, and it avails nothing to say that these qualities are inborn, although it is certainly true that they are in many cases, but who ever lacks them can measurably acquire them. Observe those that possess them. Adopt, but do not imitate their best traits. Analyse the subject and master it in sections. Be in earnest all the time.

I firmly believe that the prospects of the Poultry Business are particularly cheering, but the day when £1 per head profit was made is past. For this reason it is all the more necessary that the poultry farmer should keep a very close watch on costs and returns, sparing no efforts to secure the very best market for his produce. A mastery of the technicalities alone will not make you successful.

Having been able to place before you views which are necessary to success, but which are very rarely mentioned on the Poultry Platform or Poultry Press, I must now, in order not to offend the friends who have been kind enough to ask me to speak to-day, say at least something of the almost hackneyed subject upon which I have been asked to speak to-day, viz., Commercial Egg Production. Now, what are the essentials in this branch?

First things first, situation and extent of farm, nearness to the railway station, a good supply of water, dry soil, and a farm planned ever with a view to enlargements. Houses to accommodate not more than 150 in the Light varieties, and 100 in some of the intermediate breeds, such as Rhode Island Reds. In Sussex varieties, I consider pens of 25 give the best results. Alternative grass pens should always be arranged. At "Heydown" all the larger houses have an arrangement of four interchangeable runs, so that the birds are never on the same piece of land for more than three months at a time, after which that piece has nine months' rest.

The next essential is to procure the very best stock obtainable, and as prevention is better than cure, allow them rather more than the standard amount of space in and out of the houses. Keep the latter dry and clean, and consequently healthy.

The next essential, if the Commercial man is to be really Commercial, is for him to trap-nest and produce the bulk of his own stock. I can imagine some of you saying that trap-nesting is much too expensive, that you cannot afford it. Now, the man who possesses vision will detect in this a sound investment. You should be prepared to spend a few pounds in this way, in order to ensure a much greater return in proportion on your whole investment.

The next essential for the purely Commercial egg producer is to switch over his flush period of eggs from the ordinary time, to that which is the scarce period on most other farms. This is done by lighting the houses for one hour at night, between 9 o'clock and 10 o'clock, and giving the whole grain ration of the day. By this means the pullets which you are not trap-nesting will give from 55 per cent. to 65 per cent. in October, November, and December, and your second and third season hens which are not needed for breeding will almost reach this level of production. This applies much more strongly to the Leghorn family. The benefits of lighting the hens are really remarkable, and only when it has been tried will the truth of my statement respecting this be fully appreciated.

The next essential point in pursuing the profits of commercial egg farming is the preservation of all possible eggs during the Spring flush season. This need not entail very much capital expenditure. In my own case wooden barrels are used—creosote or tar barrels cut in half. The inside coating of creosote or tar should then be burned out, and these can be placed in tiers, one on top of another, by means of pieces of quartering across the top of each. Each half barrel will be found to accommodate nearly 100 dozen eggs. If the full benefits of preserving are to be reaped, the eggs should be taken out between the middle of October and the end of November, after which the new-laid egg is becoming more plentiful, and consequently the demand for preserved eggs is considerably less.

I have purposely made my paper a short one, as I am looking forward with great interest to the discussion which I hope will now follow, and from which we may all hope to learn something.

In conclusion, I can only reiterate my early remarks with regard to the essentials to success. That a man should have vision, a broad view of the essential factors and enterprise, bearing in mind the practical points which I made in my paper, regarding planning the farm, trap-nesting, artificial lighting and the preservation of eggs in the flush season, as I firmly believe that not merely success, but such a success that will warm the heart of any man, will result, if the whole of the ingredients are mixed with an infinite capacity for taking pains.

HARPER-ADAMS' AGRICULTURAL COLLEGE, NEWPORT, SALOP—POULTRY LAYING TRIALS, 1925/26.

REPORT FOR THE SECOND PERIOD.

The second month of the trials terminated on 26th December, and the production figures show a slight increase in output as compared with the first period, the average per bird in the poultry sections being 11.9 eggs compared with 11.2 in the previous period. The increase in the duck section is more pronounced, the average being 17.5 eggs per bird against 13.9 in the first period. The duck average, however, contains a much higher proportion of second grade eggs, and the change in the grading scale in the second month has had a visible effect in this direction.

Although a good number of the birds were moulting, which has retarded production, the general health of the flock, notwithstanding the severe weather experienced for the greater part of the month, has been satisfactory.

There have been various changes in the positions of pens in their sections. The following is a summary of the leading pens at the end of the second period:—

SUMMARY OF THE LEADING PENS.

CHAMPIONSHIP TRIALS.

Section 1—Light Breeds.—F. A. Welch, (W.L.), Cheltenham, 60 eggs; Frank Snowden (W.L.), Keighley, 348; Tom Barron W.L.), Catforth, 347; G. B. Metcalfe (W.L.), Lechlade, 324.

Section 2—Heavy Breeds.—E. Watson (W.W.), Colne, 422 eggs; Tom Barron (W.W.), Catforth, 352; G. B. Metcalfe (R.I.R.), Lechlade, 342; Capt. D. W. Gunston, M.P. (W.W.), Reading, 320.

SMALL FLOCK TRIALS.

Section 1—White Leghorns.—Miss Helen Baylis, Stratford-on-Avon, 229 eggs; Lt.-Col. A. G. Eden, Bracken Cranswick, 213; Capt. J. Thompson, Shrewsbury, 208; G. Keith Simmons, Honiton, 38; Kingsley C. Fry, Liverpool, 182.

Section 2—White Wyandottes.—Dr. A. Everson Harrison, Daventry, 241 eggs; Frank Snowden, Keighley, 229; Capt. J. Thompson, Shrewsbury, 229; C. E. D. W. Freeman, Anglesey, 225; . and T. Greenall, Grantham, 218.

(Continued at Foot of Next Column.)

Eggs Plus or Minus Meat.

By MARCUS SLADE.

I am glad to see more people are coming to the conclusion that the dual-purpose breed pays better than any light breed, an opinion I have long held.

But many poultry-keepers dislike the table poultry trade; some have not the aptitude, and some no convenient market. For these, if Mr. John Meekings' figure of 3/- per bird per annum from eggs alone is correct—and I do not question it for an average haphazard bred flock—the outlook would indeed be bleak were there not the alternative of the properly-bred, first cross, sex-linked pullet.

I know Mr. Tom Newman does not think any cross-breds can do better than birds of the best pure strains, and his opinion, based on wider knowledge than most of us can possess, is of great weight, but it seems that evidence is gradually accumulating that if two suitable breeds are selected and males from highly-fecund dams are mated to hens of a good laying strain, the resulting pullets are superior to pullets from matings of either of the parent breeds (1) in hardiness; (2) in uniformity of high egg production. Or, put another way, there are fewer duds and a higher flock average.

As evidence for these opinions, the published figures of the "Daily Mail" Test are impressive. These were of the performance of selected birds, but in a large proportion of the entries the pens were selected from small numbers bred experimentally specially for that Test. Some of the breeds used in crosses represented are not of high repute as egg producers, yet the average of the whole was good, and the average of the best pens very good.

Section 3—Rhode Island Reds.—Co-operative W. Society, Ltd., Manchester, 220 eggs; W. Mayor, Leyland, 199; Miss C. E. Roads, Bletchley, 187; Tom Carter, Abram, 181; Kingston Bagpuize P. Farm, Abingdon, 174.

Section 4—Light Sussex.—F. R. Welch, Bewdley, 214 eggs; F. Rossall Sandford, Shrewsbury, 210; Capt. A. A. Plimpton, Beverley, 196; A. Hughes, Malpas, 196; Marcus W. Slade, High Wycombe, 188.

Section 5—Black Leghorns.—R. Rodwell, Nelson, 180 eggs; R. A. Fawssett, New Radnor, 183; W. A. Lansley, Whitchurch, 175; Co-operative W. Society, Ltd., Manchester, 130.

Section 6—Any Other Light Breed.—W. Hamnett (An.), Blackpool, 183 eggs; H. Lynden Lemon (Bl. Br.), Devizes, 178; Dr. R. B. Reed (An.), Colchester, 173; S. Street-Porter (Cov. W.), Ely, 165.

Section 7—Any Other Heavy Breed.—Miss P. Mills (Rks.), Bishop's Castle, 219 eggs; Capt. A. A. Plimpton (Rks.), Beverley, 217; F. R. Welch (Rks.), Bewdley, 176; W. B. Farrar (Rks.), Batley, 175.

SINGLE BIRD TRIALS.

Section 1—White Leghorns.—F. G. Mansell, Aldridge, 46 eggs; Tom Barron, Catforth, 41; Rev. H. W. Bush, Bath, 43.

Section 2—White Wyandottes.—S. & T. Greenall, Grantham, 49 eggs; Tom Barron, Catforth, 48; Mrs Alec Wilson, Garth, 47.

Section 3—Any Other Light Breed.—K. A. Crawford (W. Br.), Dilham, 39 eggs; W. H. A. Heald (Bl. L.), Hellingly, 34.

Section 4.—Any Other Heavy Breed.—A. Hughes (L.S.), Malpas, 49 eggs; Miss M. Lawrence (R.I.R.), Glos., 49; Co-operative W. Society, Ltd. (R.I.R.), Manchester, 46.

Duck Section.—S. Ward (K.-C.), St. Neots, 258 eggs; S. E. S. Burnett (K.-C.), Arbroath, 248; H. S. Godsmark (W.R.), Ashford, 242; R. A. & A. M. Johnson (W.R.), Chalford, 235; O. C. Brown (K.-C.), Scunthorpe, 238.

More impressive is the experience of owners of properly-bred first cross pullets recording true flock averages, and not averages of selected birds. I have some experience of my own, and have made enquiry of others whom I knew had pullets bred on the lines indicated above.

My own 1924 cross-bred pullets, April hatched, and kept under conditions unfavourable to high egg production averaged over 186 eggs each. A neighbour did about as well with his of a different cross, though I have not exact figures. Only this week I had a letter from a correspondent in the extreme north of Scotland, who reared 52 out of 55 day-old pullets arrived alive early in March last, killed three which were backward, and got 4,030 eggs between August 4th and December 31st from the remaining 49. He is going to make more than 3/- per bird profit! The experience of others is similar, and I have not heard of a single owner of the right class of cross-bred who is dissatisfied.

Mr. Francis Hemelryk doubts if it would pay the commercial egg farmer to breed cross-breds for himself. So do I, and I go further, and believe it does not pay him to breed for himself at all, if he can buy satisfactory day-olds at about 20/- a dozen for pures and cross-breds of both sexes, or 30/- a dozen for cross-bred pullets.

In America, where the value of business organisation and specialisation seems to be more widely appreciated than in this country, a large and increasing number of poultry-keepers never breed a bird but buy "baby chicks."

By following the American example the egg farmer in this country could increase his profits, or, if he did not want to go into the table poultry business, could buy day-old pullets and still further simplify his business with a probable further increase of profit.

To buy pullets at six weeks old is not, I think, a practical proposition. They do not travel well at that age, and would be substantially more expensive to the purchaser than if he reared them himself, for the breeder would have to employ a larger staff in the rearing season, if he was working on any considerable scale, than he could possibly usefully employ the rest of the year, and to make the business pay have to charge the cost to the six weeks old pullets.

I am convinced that the cheapest way of replenishing stock is to buy day-olds, and because I believe, from my own experience and that of others, that with intelligent mating the production of good layers is more certain with a first cross than with pure breeding, I believe that for egg production it is more profitable to buy first crosses than pures, **provided** equal care has been taken in the mating. Such chicks cannot be as cheap as haphazard-bred stuff, but they are far more profitable, for it takes but few extra eggs to cover the extra cost per chick, and many extra eggs can be confidently expected.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sen by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

COUNCIL MEETING.

Council meeting, held at the Memorial Hall, on Wednesday, 13th January.

Present :—Mrs. Hunter (President) in the chair, Miss Maddison, Messrs. J. G. Kitson, John Smart, F. Hed. Foulkes, F. Fletcher Hearnshaw, E. Bostock Smith, J. H. Dowden, A. H. Paine, the Treasurer and Secretary.

Minutes.—The Minutes of the last meeting were read, confirmed, and signed.

Secretary's Report.—The Secretary reported that 185 new members had been elected during December. The steady increase in new members was remarkable. Considerably over 1,000 had been elected since the beginning of the financial year on September 1st, and they were still coming in very rapidly.

Midland Festival.—He also reported that the Stand at the Midland Festival at Birmingham had been a great success; they had had numerous visitors, and Midland members had much appreciated the opportunity of getting in personal touch with the Council.

Arising out of this report Mr. Fletcher-Hearnshaw suggested that Life Members should be accepted for a sum of five guineas. It was pointed out that the present rules of the Association did not permit this, and Mr. Hearnshaw gave notice that he would raise the question at the Annual General Meeting.

Treasurer's Report.—The Treasurer submitted the financial report, and congratulated the Council upon its satisfactory nature. He moved its adoption; this was seconded by Mr. Bostock Smith, and carried.

"Eggs" Committee Report.—Mr. J. G. Kitson, Chairman of the "Eggs" Committee, announced that the circulation was steadily increasing, and financially they were in a very satisfactory state.

Experimental Farm.—The Secretary reported that the Experimental Committee had visited Rudgwick, and expressed itself completely satisfied with the work which had been done on the new farm. The large house had proved highly satisfactory. Instructions had been given for the erection of an incubator house and office. Also for the purchase of certain stock necessary for the experiments, for incubators, brooders, and other necessaries for the farm.

Food Purchase Scheme.—The Secretary spoke of the success of the Food Purchase Scheme, and said that the turnover was increasing every week, and it would soon be necessary to extend the office accommodation at Rudgwick. Hundreds of letters of appreciation of the scheme had been received; there were few complaints, and these were immediately investigated. Arrangements were being made whereby members could be supplied with lots of one cwt., and he hoped these would soon be completed.

This concluded the business of the meeting.

The date of the next meeting was fixed for Wednesday, February 10th, 1926.

HUMANE SOCIETIES.

I take it that all our readers would condemn most strongly cruelty to poultry in any form. If someone has asked "What is Truth?" you might also ask, "What is Cruelty?"

In one of our American contemporaries I note that the use of cramming machines is prohibited in some of the States on the ground that it is cruel to the birds, and now I see in the "American Poultry Journal" that the Humane Society of Western Pensylvania has made an investigation of a poultryman who used artificial illumination in his poultry houses to lengthen the working hours of his hens. Investigation was made following a complaint made by a party in Indiana to the effect that the poultryman had lengthened the hours of labour so that his hens worked all night.

On more than one occasion during the past year or so letters have reached me protesting against the dubbing of cockerels as being cruel, and one breeder was threatened by an agent of the R.S.P.C.A.

Any visitor to the Sussex Fattening Stations would be quickly assured as to the question of cramming being cruel or not. I think he would come away with the idea that the birds like it.

As for lighting being cruel, we have known this to be overdone in the early days, and perhaps some cruelty was unintentionally inflicted, but they were very rare cases and due to ignorance and the failure to understand a pullet does need a certain amount of rest, and that we cannot force nature too far.

As for dubbing. Only a little common sense is necessary to prove that so far from being cruel, it really saves the bird from much unnecessary suffering. Even in the south this winter many of the heavily combed breeds have suffered from frostbitten combs.

INTRA-DERMAL TESTS FOR B.W.D.

I have received the following letter from Major Saunders, M.R.C.V.S., in reference to this test:—

> "Dear Mr. Newman,—I noticed your mention of the intra-dermal test for B.W.D. in issue of "Eggs" for January 6th, and feel that I cannot agree with Mr. Dalling's statement that it is a test that the average poultry farmer could make himself, for, although the actual technique of making the injection could soon be mastered by any intelligent person, the real difficulty lies in the interpretation of the results. The actual injection, too, is important, as the test fluid must be placed at exactly the right depth in the skin, not under it, and as the test depends upon the formation of not of a localised swelling, aseptic measures must be taken to avoid swellings due to infection and not to the reaction. It would, indeed, be a pity if a perfectly reliable test should fall into disrepute owing to misapplication, and that is the only reason why I am troubling you with this comment."

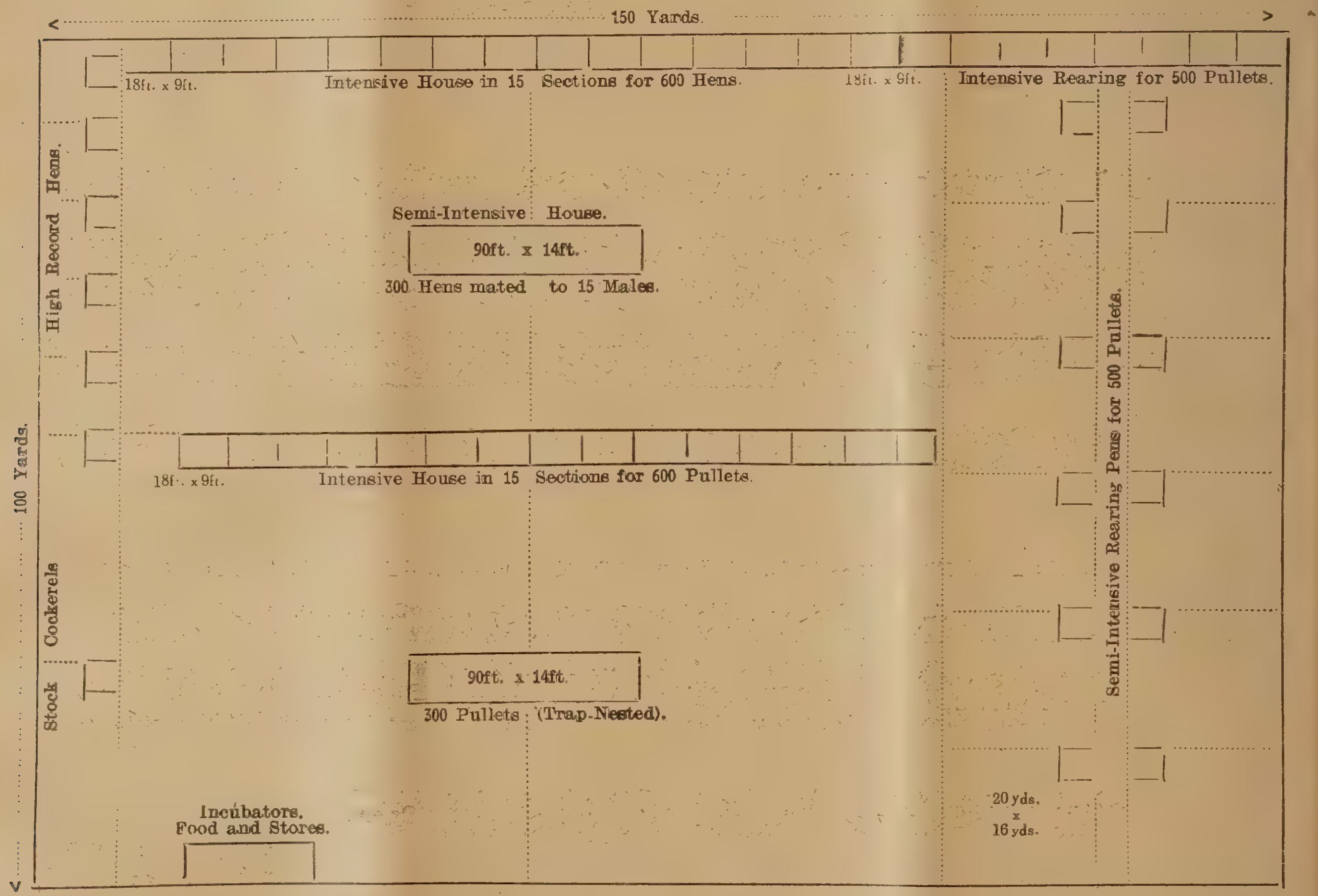
COMPLAINTS LIMITED.

This has reference to complaints received from members, who have not complied with the rule, that if their name is to appear in the list of members in the Annual Register their subscriptions must be paid before the 31st of October. When the notices that subscriptions are due, are sent out at the end of August, particular attention is directed to this rule, and it is also published in "Eggs" before the time is up. Yet each year we have numbers of complaints from members, who wish to know why their name is omitted, and are not satisfied with the explanation given. I am instructed by the Council to say, that this rule must be observed. It is impossible to carry on the business of the society if this is not done. I think you will agree with me, that it is a little absurd for members whose names are omitted because they have not complied with the rule, to express astonishment and indignation, frequently mentioning that they have met me personally somewhere, or that they are advertisers in "Eggs," as a reason why their name should be included, as if I have the time to wade through hundreds of names to see whether any one individual should be included or not; and how can we make exceptions without being unfair? Moreover, it is important from every point of view that the names appearing in the Register should be those bona fide, fully paid-up members. If we included those who had not paid on the possibility that they would pay, it would be misleading, and entail endless confusion. Of course the Council regret that the name of any member should be omitted, but the unanimous opinion is that if the business of the Association is to be conducted successfully the rule must stand, and it must be observed. It is always open to members to raise the point at the Annual General Meeting, and to make any suggestion.

THE POULTRY FARM OF THE FUTURE.

The following very interesting plan we have received from Mr. Tom Carter, and our readers will agree with him that it is likely to stimulate thought.

In reference to his second remark that he does not agree with us as to the possibility of breeding from intensive birds, it should be clearly understood that we have made no definite statement on this point, but have spoken of it as a possibility. Until it has been tested for a series of years, it would be impossible to express an opinion one way or the other.


150 Yards.
100 Yards.
18ft. x 9ft.
Intensive House in 15 Sections for 600 Hens.
18ft. x 9ft.
Intensive Rearing for 500 Pullets.
High Record Hens.
Semi-Intensive House.
90ft. x 14ft.
300 Hens mated to 15 Males.
18ft. x 9ft.
Intensive House in 15 Sections for 600 Pullets.
Stock Cockerels
90ft. x 14ft.
300 Pullets (Trap-Nested).
Semi-Intensive Rearing Pens for 500 Pullets.
Incubators.
Food and Stores.
20 yds. x 16 yds.

Mr. Tom Carter says:—

The above is necessarily incomplete without considerable explanatory memoranda, but, for the moment, should stimulate **thought.**

I am submitting this for two reasons:—

(1) Because I have proved on my own farm that Mr. Newman is right when he expresses confidence in the possibilities of rearing and keeping intensively.

(2) Because I do **not** agree with him as to the **advisability** of breeding from intensive birds.

MARKETING OF EGGS.

PROPOSED REGULATIONS TO BE ENFORCED BY S.P.B.A.

Dear Sir,—

All members of the Association are entitled to come under the following scheme for marking eggs provided they comply with the following conditions:—

No eggs shall be offered for sale bearing the registered stamp of the Association which cannot be guaranteed to be seven days old or less.

No egg shall be offered for sale bearing the registered stamp which is less than 2 ozs. in weight.

No egg shall be offered for sale bearing the registered stamp unless the system of feeding is on the lines of the S.P.B.A. formulae or has been approved by the Secretary. The Council to be the final court of appeal if the Secretary's award is unfavourable. (Duck eggs and acorns, or too much fish meal, is the reason for this.)

Subject to the foregoing, circular stamps, all of similar type, will be issued bearing the legend S.P.B.A. No. 1 or upwards.

Each member accepted under this scheme will have a separate number, and it shall be a misdemeanour, involving dismissal from the Association, to allow such stamp to be used for any eggs not the produce of one's own farm.

Each member accepted under this scheme shall pay 10/- for the stamp (which remains the property of the S.P.B.A.), and 10/- a year registration fee, to cover the costs of administration of the scheme.

Each member on applying for the issue of a stamp shall furnish the names of, say, two people of substance, not related or associated financially with the applicant, who are prepared to sign a guarantee form as to the bona fides and good character of the applicant, and who also are prepared to indemnify the Association in a sum not exceeding £25, as liquidated damages, in the event of the Council finding it necessary to terminate the membership of the applicant.

In the event of the Council terminating the membership of any applicant, the stamp shall be at once returned to the Secretary, and applicants formally engage to return same, subject to a fine of £5 for non-compliance.

In the event of any difference of opinion as to the interpretation of this agreement, such shall be submitted to arbitration under the Arbitration Act of 1892, or any statutary modification thereof subsequently enacted.

Yours faithfully, F. J. HEMELRYK.

TESTIMONIALS.

The Station Pedigree Poultry Farm,
Morpeth, Northumberland.
6th November, 1926.

"Dear Mr. Newman,—I received the mash (5 cwts.) from Leith to-day, and I am quite pleased with it. It seems to be so sweet compared to that which I have been using. It will save me quite a lot in food bills also, and I should think I save at least £1 10s. on five cwt.

I wish I had joined the S.P.B.A. sooner, but really I never thought until I read "Eggs." The sub. is nothing compared to what I am going to save.

Thanking you again for your kind and quick attention.

Yours faithfully,
(Signed) J. A. KANE."

Old Lodge, Nutley, Sussex.
9th December, 1926.

"Dear Sir,—I am pleased to tell you that since we started using the mash recommended and supplied by you, our egg production has gone up fifty per cent.

Yours truly,
(Signed) R. F. LANE."

Theberton Grange, Leiston, Suffolk.

"Dear Sir,—Whichever sort this mash is which I have had, I must say that its effect is wonderful, and the birds love it. I have 300 chicks on it, which are now a fortnight old, and they look more like a month old and are very full of beans.

Yours faithfully,
(Signed) H. St. G. MAXWELL."

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answers all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to **Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.**

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping exept post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

ALL questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

M. J. P. (——) is concerned as to the cost of feeding. He thinks he is overdoing the Sussex ground oats. His flock average from 160 birds appears fair, but he thinks the feeding costs excessive. I wonder whether he is calculating the cost of food per head or the cost of producing the egg? The foods used are: Fish meal, ground oats, maize meal, sharps and bran. This is given as a wet mash. For a laying ration I would suggest the following, this would cheapen the mash a little: 4 parts sharps, one bran, 1½ maize meal, half ground oats, and one of a good sample of meat and bone meal. The S.P.B.A. can offer excellent samples now, with an analysis of 50 per cent. albs., 20 phosphate of lime, and 3 oil, at 15s. 6d. per cwt., in lots of not less than 5 cwt. F.O.B.. I would also suggest that results would be better if, instead of feeding 3 oats, 2 wheat, and one maize, he fed 3 maize, one oats, and one wheat.

R. C. (Wellington) writes that he has a fowl house built of brick and tiles, with ventilating hole in the ends, fitted with perch and dropping board, and in the perches there are holes bored 9 inches apart and moth balls placed in ; is this necessary? The house it whitewashed with lime and paraffin twice yearly. The scratching shed is 12 feet long and 7 feet wide by 5 feet high. The laying boxes are placed outside ; always plenty of limestone grit and oyster shell ,and also two racks of green food. Six White Leghorns, hatched last April, and three last year's 1924 pullets have averaged 21 eggs per week. He has changed his mash, and since making the change eggs have dropped to six or seven per week. He asks if three ounces of meat and bone meal, steamed, and one ounce of common salt and one of oyster shell dust is correct for ten pounds of mash.—The moth balls in the perches are scarcely a necessity. Presumably they have been placed there with the idea of keeping insect life away? It is not a bad idea. The production of the birds has been quite satisfactory. The change in the mash might have been too sudden, and this would have put the birds off lay, or there may be some particular ingredient in the food which they do not like. I do not understand his query whether three ounces of meat and bone meal, one of common salt and one of oyster shell dust would be correct for ten pounds of mash, but presumably he means the mineral mixture; this should not be three ounces of meat and bone meal, but three ounces of steamed bone meal, and five ounces of the mixture should be added to every ten pounds of mash.

A. B. C. (Knightsbridge) writes that he is always getting leg weakness amongst his hens, which he finds very difficult to cure. He rubs the legs well, and gives Parrish's food and a little milk; he has stopped feeding maize and laying meal. He also suspended the hen during the day-time in a net. He gave two particularly bad cases away last October, and they went into the country on free range, where they soon recovered. The hens are kept intensively, but have plenty of room. I am afraid I cannot make any suggestions. It would appear to me to be some form of cramp, due probably to the conditions on the floor; an insufficiency of litter, or the nature of the litter. There is also the possibility of the litter being damp and causing the trouble. I do not think it is in any way caused by the diet.

S. E. S. (Brooklands) wants some information on feeding. He is at present giving a dry mash, made up by measure of: 5 parts bran, 3 sharps, 2 Sussex ground oats, one clover meal, 1½ meat meal, with plenty of swedes. His formula contains far too much bulk, and it would be much better if it were as follows (by weight): 1 lb. each bran and clover meal, 1½ maize meal, 1 Sussex ground oats, 4 sharps, and one of meat and bone meal or fish meal. We regret we cannot reply to his letter by post, as he is not a member of the S.P.B.A.

"Worried" (Woodbury) writes that he read an interesting article by Professor Thomson in "Eggs" of the 16th December. He tested the formula, giving the relation of winter eggs to annual eggs, but found that the winter eggs were greatly in the minority, and wishes to know if this is to be accounted for by the difference between all eggs and eggs of over two ounces in the winter period. Further, applying the formula to a bird who lays 250 eggs during the year, she would have to lay 95 eggs during the winter period, which, as Euclid might say, is rather unlikely. He would be grateful if I could enlighten him in any way. He has 259 pullets which came on to lay during November. He had 209 eggs from these yesterday. He has been largely following methods advocated in "Eggs." Do I consider this satisfactory? He wishes to know if we can supply the mash given on page 72 of the Annual Register. He relates his experiences with regard to ventilation. From experiments with matches he deduced the line of the air currents. Thereupon he nailed a plate on the inside of the house, which brought the air currents to the floor. I am afraid the sketch is not sufficiently well defined for me to produce it here. Why my correspondent should sign himself "Worried" I do not know. As he is getting such a very wonderful percentage of eggs from his pullets he ought to be in clover. I cannot give him any information about the formula given by Professor Thomson further than was contained in the paper.

MEMBERSHIP OF THE S.P.B.A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.

NATIONAL POULTRY COUNCIL.

Report of the Executive Committee to the National Poultry Council, presented at St. Mary's Hall, Coventry, January 21st, 1926.

The Executive beg to report that it has held one meeting since the last Council on October 23rd, 1925.

Affiliation.—The following application for affiliation has been received and approved:—Dorset County Agricultural Committee.

Patrons.—There have been elected as Patrons of the National Poultry Council:—Major G. T. Williams, Tredrea, Perranwell, Cornwall; Mr. Chas. Hardy, Argos Hill, Rotherfield, Sussex; Mrs. E. Kekewich, Yew Tree House, Royston, Herts; Mr. C. E. Furness, Dewlands Manor, Rotherfield, Sussex; Sir Archibald Mitchelson, Bart., Rotherfield, Sussex.

Finance.—The Treasurer's Statement will indicate the position of the Council funds to date.

A cheque has been received from the British Poultry Exhibit Committee, British Empire Exhibition, value £61 19s. 6d., collected there by the President's Partridge Cochin, George II., for the National Poultry Council funds. The warmest thanks of the Council are due to Mr. Clem Watson and the Committee for this handsome contribution, which example, it is hoped, will be followed by others. It is indicative of the fact that there is a host of smaller contributions obtainable if the opportunity is afforded.

Again it is necessary to direct the attention of the Council and its affiliated societies to the serious financial position, which demands immediate consideration and action. Appearances are at the moment to the effect that the present financial year will show a deficit of nearly £200. It is evident that the great majority of poultry-keepers fail to recognise the important work which the National Poultry Council has done and is doing on their behalf and in their interests, or think this to be of no value to them. That is also seen in the fact that the majority of Poultry Societies (other than general), Clubs and County Education Committees have never affiliated, nor have more than a minority of manufacturers and traders who live by the Poultry Industry, accorded any support. But for the generous contributions received through two or three societies, which have previously been named, the Council could not have continued its operations. These cannot be reckoned upon in the future. Hence it is that the alternatives which must be faced at the end of the present financial year are (1) that there should be a large augmentation of income by affiliation fees. Patrons' subscriptions or other contributions, or (2) that the work of the National Poultry Council shall be drastically curtailed, or (3) that it shall cease to operate. The issue cannot be ignored. During the last few months nearly a thousand letters have been written in answer to enquiries about the Income Tax question, giving advice and information. Those applying have in a few cases sent a contribution in acknowledgment, the total of which, however, would not much more than pay for postage and stationery.

As an instance of the want of response to appeals for further support, upwards of two thousand letters have been issued inviting larger poultry breeders to become patrons, and societies, etc., to affiliate. As will be seen above, the results have been meagre in the extreme up to the present time. Members of Council and of affiliated societies require to realise that the important and valuable proposals which are made, often involve heavy costs for printing, postage, etc., and administration.

In response to a call from the Ministry of Agriculture and Fisheries for the National Poultry Council's proportion of capital expenditure upon the National Poultry Institute at Harper-Adams, one-third the War Stock held by it has been sold, realising £1,001 2s. 0d., of which £1,000 has been paid over. A special report will be presented to the Council showing the present position of the Institute Fund.

Conference on Marketing.—As already intimated through the Press, this Conference will be held at the Holborn Restaurant, London, on January 27th. A large number of acceptances have been received, and it is anticipated that there will be a most representative gathering of those engaged in production and distribution, when the many problems presenting themselves will be considered. Arrangements have now been made for the admission to the Conference of representatives of the Agricultural and Poultry Press. Special attention is directed to a report on the Marketing of Eggs and Poultry which is being issued by the Ministry of Agriculture and Fisheries.

Sale of Preserved Eggs as New-laid.—That in addition to the mixing of imported supplies with home produce, preserved eggs are frequently sold as new-laid, is well-known. The Executive Committee have received with satisfaction a report of a case tried in Norfolk, in which, as the result of a prosecution undertaken by Messrs. J. Sainsbury, Ltd., a heavy fine was inflicted by the Bench upon a vendor for mixing eggs preserved in water glass and selling as new-laid. The firm named is to be commended for taking action, and it is hoped that others will do the same.

Poultry Farmers and Income Tax.—A decision given by four judges in the Edinburgh High Court, on October 27th, 1925, to the effect that poultry farming is husbandry within the meaning of the Finance Acts, confirms the contention of the National Poultry Council throughout its long conflict with the Inland Revenue, and also the decisions given by Special and Local Commissioners in various parts of the country. It was reasonable to anticipate that the above decision, which has been fully reported, would have been accepted by the taxing authorities. The Inland Revenue has withdrawn its appeal in the Hanson case, which has been pending for nearly two years, but for reasons not divulged has constantly been postponed. In another case where the Commissioners had given an opposite decision to the above, the poultry farmer concerned, without consulting or informing the National Poultry Council, has entered an appeal. The Executive Committee urges that no action be taken, subsequent to the first appeal to the Commissioners, without submitting the matter to the Council, otherwise the industry may be placed in an unfortunate position.

Restrictions by Local Authorities.—Generally speaking the powers of local authorities with respect to the keeping of poultry are now understood by Sanitary Inspectors and other officials. The policy adopted by the National Poultry Council in this direction has been uniformly successful. At the same time it is evident in many instances much requires to be done in order to improve methods adopted by poultry-keepers, who frequently maintain numbers in excess of the capacity of the area, by insanitary conditions endanger public health, or create a nuisance to neighbours. Where anyone of these is the case action is warranted. Again we commend to local societies the exercise of influence to bring about, where required, better conditions.

Marking of Imported Eggs.—Again there has been a failure on the part of the Government to fulfil promise given that this Bill should be carried into law. A statement has been issued to the effect that a new Bill is to be introduced on a wider basis.

Rating of Agricultural Buildings.—The new Rating Act which was passed by Parliament in December last, provides that buildings on farms, except dwelling houses, shall be rated on the same basis as land—that is, at one-quarter the full rates. Such concession should be of considerable importance to poultry-farmers, who may, however, have to fight rating authorities even more strenuously. The Act does not, however, come into operation until April, 1927.

Signed on behalf of the Executive Committee.

TOM NEWMAN, Chairman.

January 20th, 1926.

STATEMENT ISSUED BY THE MINISTRY OF AGRICULTURE AND FISHERIES

For the information of the National Poultry Council Meeting at Coventry, on the 21st January, 1926.

National Poultry Institute Scheme.

The largest section of work under this scheme is the National Institute of Poultry Husbandry, which is located at Harper-Adams' Agricultural College. Very material progress has been made during the past six months on the work of establishing this Institute. Though it is not anticipated that the Administrative Building of the Institute will be complete until the summer, work on the Service Building is well advanced. This building will house a food store, a food mixing headquarters, power house, carpentry, judging and killing rooms, and a hospital, and is conveniently located in the centre of the plant. An artesian well has been bored, and an unlimited supply of good water secured for all purposes. A storage tank from which pipes will be laid to all parts of the plant, etc., is being built on the highest point of the site. It is also satisfactory to state that the Director's residence has been completed, and that Prof. Willard Thompson has already entered into occupation of it. An inspection of all the then existing buildings, plant and stock was made by the National Poultry Institute Advisory Committee of the Ministry on the 15th November last.

Although the buildings are still in course of erection, the instructional work of the Institute has already been commenced. A full year's course has been planned, and the first class to enter this original course was admitted in October last, and is now in progress. A copy of the syllabus describing this course can be obtained on application to the Institute. Other and longer courses will be developed as occasion demands.

Full details of all the building plant and stock of the Institute are at present being published in a series of articles in the National Poultry Institute Journal, and in order to secure the widest possible publicity for this information, the articles are being communicated by Prof. Thompson to the Poultry Press. Arrangements have also been made for all technical papers dealing with the results of research work under any part of the National Poultry Institute Scheme to be communicated to the various organs of the Poultry Press. The object of this arrangement is to ensure that the Institute Journal, while still remaining the official journal of the Institute, will not be given exclusive or prior rights in regard to the publication of any scientific results obtained under the Poultry Institute Scheme.

Research Work in Poultry Diseases.

The time of the Officer in Charge of this research, which is being carried out at the Ministry's Veterinary Laboratory, has been mainly occupied during the past six months with a study of Bacillary White Diarrhoea; and a paper on the subject has appeared in the December issue of the Journal of Comparative Pathology and Therapeutics. A summary of the principal points of this paper will be communicated by the Ministry to the Poultry Press in due course. It will be sufficient to say at present that the following points have already been investigated in connection with Bacillary White Diarrhoea:—

1. Morphological and cultural characteristics and fermentation reactions of Baccillus Pullorum.
2. Pathogenicity of Bacillus Pullorum for various animals.
3. Routes of infection.
4. Estimation of Minimum Lethal Dose of Bacillus Pullorum.
5. Symptoms and post-mortem lesions of the disease.
6. Toxin produced by Bacillus Pullorum.
7. The agglutination test as a means of eradicating the disease.
8. Immunology.
9. The carrier fowl; distribution of the organism.
10. Carriers amongst chicks which survive the disease.
11. If the Bacillus Pullorum is an inhabitant of normal chicks.
12. Infected eggs.
13. Contact experiments:—
    (a) Between diseased and healthy adults.
    (b) Between carrier hens and healthy chicks.
14. Vaccination.
15. Treatment.
16. Control and eradication.

A new leaflet on Bacillary White Diarrhoea is now in course of preparation.

The following work is at present in progress at the Laboratory:—

Avian Typhoid.

The following points have been studied:—

1. The possibility of infection being transmitted through the egg.
2. The distribution of the causal organism in the carrier fowl.
3. The protective value of various kinds of vaccine.

Fowl Pox.

A detailed study of this disease is also being carried out, attention being confined at present to the following points:—

1. Filterability of virus.
2. Susceptibility of rabbits.
3. The serology of fowl pox.
4. Prophylactic value of killed virus.
   Prophylactic value of live virus.
   Prophylactic value of attenuated virus.
5. The relations of the viruses of Fowl Pox, Pigeon Pox, and Vaccinia.

In addition to work on the diseases already mentioned, an investigation is being carried out of an outbreak of disease amongst chicks due to the Bacillus aertrycke.

Research in Poultry Nutrition.

As the Council is aware, this work is being carried out at the School of Agriculture, Cambridge, and is proceeding satisfactorily on systematic lines. During the period under review, Mr. E. G. Halnan has published two valuable papers, the first dealing with the Calcium Phosphorus and Nitrogen Balance of the non-laying and the laying pullet, and the second dealing with the Function of the Gizzard in Pullets. These papers appeared in the National Poultry Institute Journal in August and November last, respectively. In addition to these, Mr. Halnan read a paper on the Mineral and Vitamin requirements of Adult Fowls at the National Poultry Conference, held at Harper-Adams' College in August last. This paper was subsequently published in the September issue of the Institute Journal.

Analyses in connection with the study of the variation in composition of the White Leghorns from birth to maturity have progressed steadily, and the results will be published in due course. Owing to bad hatchability results and infertility of eggs, a similar study of the Light Sussex had to be abandoned; this study is included in the programme for 1926. Light Sussex birds hatched in 1925 were utilised for testing the effect on the composition of the carcase and subsequent egg production of feeding rations with a narrow and a wide nutritive ratio.

Digestibility determinations of "weak" and "strong" wheats are in progress, but the technical difference made under such determinations with birds are such that progress is inevitably slow.

Research in Poultry Genetics.

This work is also proceeding on systematic lines, but no information of interest is available, or will be available for some time to come.

Northern and Southern Breeding Experiments.

All that can be said at present about the practical experiments which are being carried out at Reaseheath in breeding for egg production, and at Wye in breeding for table poultry production, is that these two sets of experiments are proceeding according to plan. The lines on which the work is being conducted have already been communicated to the National Poultry Council, and it will be remembered that an announcement as to the results of the Preliminary Experiments, in 1924, was included in the statement made at the Council's Meeting at Harrogate in July last. The results attained in 1925 are now being examined, and a statement on the subject will be made at a later date, after the Sub-Committee's reports have been received.

The methods of recording the results of the experiments at both Reaseheath and Wye have been investigated, on the initiative of the Ministry, by a statistical expert from Cambridge University, and that expert's report has been communicated to the two Sub-Committees. The Ministry hopes that it will be possible, later, to make arrangements for the statistical records obtained at both centres to be examined periodically by a trained statistician, with a view to assisting the Sub-Committees in keeping accurate and reliable records, but nothing has yet been settled in this connection.

FOOD PURCHASE SCHEME.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail:—

Fish Meal (Pure White)	**20/0**	**F.O.R. London.**
,, ,, ,, ,,	**20/0**	**F.O.R. Bristol.**
,, ,, ,, ,,	**19/0**	**F.O.R. Swansea.**
,, ,, ,, ,,	**19/0**	**F.O.R. Tynemouth.**
,, ,, ,, ,,	**19/9**	**F.O.R. Grimsby.**
,, ,, ,, ,,	**18/3**	**F.O.R. Bradford**

PRICES OF MASHES, PER CWT.

	Layers	Growers	Breeders	Chicks
F.O.R. LIVERPOOL ...	11/9	11/9	12/0	12/6
F.O.R. LIVERPOOL ...	12/0	12/3	13/6	13/6
F.O.R. LONDON	11/9	11/9	12/9	13/0
F.O.R. LEITH	11/3	11/3	12/3	13/0
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. GREENOCK ...	12/3	12/6	13/3	13/9
F.O.R. KING'S LYNN ...	11/3	11/3	11/9	13/0
F.O.R. BELFAST	13/0	12/6	13/0	13/9
F.O.R. BRISTOL	11/9	11/9	12/9	13/3
F.O.R. SOUTHAMPTON ...	11/9	12/0	12/3	11/6
F.O.R. PLYMOUTH ...	12/9	13/0	12/9	14/6
F.O.R. ABERDEEN	12/9	11/9	13/9	13/9
F.O.R. HARROGATE ...	12/9	12/6	13/6	14/0
F.O.R. GLASGOW	12/3	12/3	12/3	13/3
F.O.R. STAFFS	11/6	11/6	12/9	12/6
F.O.R. SUSSEX	11/6	11/6	12/6	12/6
F.O.R. TEWKESBURY ...	11/9	11/3	13/0	13/9

		Per Cwt.
MAIZE GRITS ...	**F.O.R. LONDON ... ...**	**11 3**
MAIZE GRITS ...	**F.O.R. IPSWICH ... ...**	**11 3**
S.G. OATS	**F.O.R. LONDON ... ...**	**13 6**
S.G. OATS	**F.O.R. SUSSEX ... ...**	**12 6**
S.G. OATS	**F.O.R. BRISTOL ... ...**	**13 3**
MEAT & BONE MEAL	**F.O.R. LONDON ... ...**	**13 9**
MEAT MEAL	**F.O.R. LONDON ... ...**	**14 3**
MAIZE GERM MEAL	**F.O.R. LONDON ... ...**	**9 6**
MAIZE GERM MEAL	**F.O.R. IPSWICH ... ...**	**9 6**
MEAT & BONE MEAL	**Carriage Paid ... ...**	**15 3**
MEAT MEAL	**Carriage Paid ... ...**	**15 9**

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

We can now offer the following articles in 1 cwt. lots, Carriage Paid, to all members in Sussex, Surrey, Hampshire, and Kent:—

LAYERS' MASH	**13/6 per cwt.**
BREEDERS' MASH	**14/0 per cwt.**
GROWERS' MASH	**13/3 per cwt.**
CHICK MASH	**16/3 per cwt**
SUSSEX GROUND OATS	**15/0 per cwt.**
CHICK FEED No. 1	**19/6 per cwt.**
CHICK FEED No. 2	**17/6 per cwt.**

These cannot at present be supplied to counties other than those mentioned above.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

Jay, Miss E., Blendon Hill, Bexley, Kent.
Miss N. Lee, The Mount, Dinas Pouris, Cardiff.
Cuthbert, F. C., Moorfield Farm, Chadwick Lane, Urmston, near Manchester.

Waddell, J., Family Grocer, Randalstown, Co. Antrim.
Abbott, Mrs. G. N., Clipsham, Hinckley Road, Nuneaton.
Tongeman, J., Little Park Farm, Park Gate, Sarisbury, Southampton.

Page, W. L., 30, Bedford Place, Southampton.
Irving, C., 5, Gardenia Street, Carlisle.
Taylor, A., 24, Lane End, Kirkheaton, Huddersfield.
Scott, E., Old Whitemyres, Stocket Road, Aberdeen.
Cater, Mrs. M., "Arundel," 15, Wellington Road, Bush Hill Park, Enfield, Middlesex.

Horne, Miss M. A., Moreton-in-Marsh, Gloucester.
McInally, M., Edenmhor, Haheny, Co. Dublin.
Aitchison, J., Newdigate, Dorking, Surrey.
Holm, Capt. A. M., Hazelden Mains, Newton Mearns, Renfrewshire.

Mays, Mrs. C., Elmemere, High Street, Ashby, Scunthorpe, Lincs.
Greenwood, R., Broomhills, Eastriggs, Dumfriesshire.
Campbell Forsyth, J., Broomhills, Eastriggs, Dumfriesshire.
Wainwright, P. H., 208, Shirebrook Road, Heeley, Sheffield.
Henderson Chalmers, Mrs. A., Springbank, East Kilbride, N.B.
Holly, W., Berrylands P.F., Surbiton.
Hunt, Major F. N., The Cottage, Swallowfield, Berks.
Smith, E. S., Aldabenea, Arcangues, Par Biarritz, France.
Lipscombe, Miss S., Moor House Farm, Denham, Bucks.
Wooldridge, E., Carlton Lodge, Herne Hill, S.E.24.
Jackson, R. A., Swallownest P.F., Askham, Newark, Notts.
Kell, W. W., 11, Half Mile, Stanningley, Leeds.
Lark, H. E., Railway Cottages, The Nunnery, Thatford, Norfolk.
Joslin, Capt. E. W., Aston Rowant, Oxon.
Dawrant, A., Calder and Hebble Inn, Salterhebble, Halifax.
Wilkinson, W., Blackburn Philantropis Assurance Co., King Street, Clitheroe.

Cookson, C., Eymore, West Hill, Ottery St Mary, Devon.
Barber, J. W., Braconville, Takenham Road, Taverham, near Norwich.

Hooker, G. S., Finmarken, Elmdon Road, Marston Green, Birmingham.

Todd, Miss W. A., Heath Farm, West Runton, Cromer.
Langtry, C. E., "Alderley," Upper Raby Road, Neston, Cheshire.
Ebblewhite, Lieut. Com. E. G. (R.N.), Little Barn, Harpeton, Woodbridge, Suffolk.

Wotherspoon, T., Cawsand, Pinewood Avenue, Crowthorne, Berks.
Guy, Com. B. J. D. (V.C., D.S.O., R.N.), Stanford Road, Pirbright, Woking, Surrey.

Treen, Mrs. E. M., Langley, North Looe, Ewell, Surrey.
Smith, Miss G. L., The Laurels, Wigtoft, near Boston, Lincs.
Howard, F. T., Laurel Cottage, Waddicar Lane, Melling, near Liverpool.

Hodgson, G. B., Ayside, Grange-over-Sands, Lancs.
Clarke, C. J., Hamilton Drive, Melton Mowbray, Leicester.
Marrow, J. E., 171, Victoria Street, Newton Moor, Hyde, Cheshire.

Taylor, Miss C. R., Boghall House, Kingskettle, Fife.
Woolfender, T. C., Lindow End, Great Warford, Knutsford.
Druce, A. J., The Sundial, Austen Way, Gerrards Cross, Bucks.
Huzzey, W., Gretna Cottage, West Ibsley, near Newbury, Berks.
Aitken, A., 34, High Row, Patna, Ayrshire.
Jack, Miss I., Hazelwood, Thornhill, Dumfriesshire.
Finlay, Miss N., "Broomton," Gollanfield, Inverness.
Edwards, J. H., St. Martins, East Brent, Highbridge, Somerset.
Clarey, Mrs. E. E., Lodge Farm, Skendleby, Spilsby, Lincs.
Jackson, C., "Braxted," Haverings Grove, Hutton, Essex.
Dick, R., Garnockside, Kilbirnie, Ayrshire.
Wiles, Miss C. T., "Claremont," St. Heliers, Jersey.
Newhouse, J., 14, Brook Street, Skipton.
Ings, Mrs. D., Bonniesfield Farm, West Tisted, Ropley, Hants.
Mackintosh, D., 28, Duke Street, Larkhall, Lanarkshire.
Johnson, B., "White Lea," Green Hammerton, York.
Anderson, Mrs. E. E., Carmel Mount, Ballure, Ramsey, I.O. Man.
Lake, Miss B. E., Litterfield, Burwash Common, Sussex.
Ware, Mrs. H. S., Woodend, Dalcross, Inverness-shire.
Broderson, Miss M. L., Cressington, Tillingdown Lane, Caterham, Surrey

Hagarth, G. G., Ayton, Berwickshire.
Holman, A. E., The Haven, Ticehurst, Sussex.
Lee, A., London Road, Long Sutton, Wisbech.
Hemingway, F. W., The Lodge, Wadlands Hill, Farsley, near Leeds.

Wigglesworth, S., Priesthorpe Road, Farsley, near Leeds.
Coombes, L., 30, Maesteg Road, Tondu, Glam.
Shoolbridge, J. C., Lynch House, West Milton, Melplash, R.S.O. Dorset.
Curtis, R. C., Stanbury Camp, Halwell, near Totnes, Devon.
Cooke, R. H. De B., Killincoole Rectory, Castle Bellingham, Ireland.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

KEIGHLEY AND DISTRICT BRANCH.

Keighley and District Branch of S.P.B.A. held the first of a series of Open Egg Shows in the Temperance Hall, Keighley, on Wednesday, January 6th. Mr. J. Paget judged the exhibits. Awards were as follows:—

Hatching Eggs.—Class 1 (six white hen eggs): 1, Geo. Davey, Sutton; 2, H. Kershaw, Keighley; 3, Norman Hiley, East Morton. Class 2 (six tinted eggs): 1, Norman Hiley; 2, Ed. Hodgson, Oakworth; 3, Miss Scott, Keighley. Res. and V.H. Com.: Mrs. A. Wilson, Denholme; H. Com.: S. Hartley, Haworth. Class 3 (six brown eggs): 1, A. Sawyer; 2, Mrs. A. Wilson; 3, T. Howe, Threlkeld. **Commercial Eggs.**—Class 4 (six white hen eggs): 1, Norman Hiley; 2, Ed. Hodgson; 3, Geo. Wilson, Denholme; Res., Mrs. A. Wilson. Class 5 (six tinted eggs): 1, Norman Hiley; 2, S. Bancroft, Haworth; 3, J. D. Greenwood, Oakworth; Res., Ed. Hodgson. Class 6 (six brown eggs): 1, S. Hartley; 2, J. D. Greenwood; 3, T. Howe. Class 7 (six duck eggs, hatching or commercial): 1, H. Kershaw.

After awards were made the eggs were sold for the benefit of Annual Show funds.

The first three positions for the Silver Challenge Trophy, offered by the Society for most points gained in the whole series of Egg Shows, are:—1, Norman Hiley; 2, Mrs. A. Wilson; 3, Ed. Hodgson.

After the sale of the eggs Mr. Frank Snowden (President of the Society) invited questions on matters relative to Poultry-keeping. The questions asked were numerous and varied, and Mr. Snowden replied in his usual lucid manner to the satisfaction of everyone.

Mr. E. Dearnley, Fell Lane, Keighley, was declared the winner of the sitting of eggs offered by Mr. Wm. Hamnett, Blackpool, for a guessing competition. Winning number was 3,037.

A. WILSON, Hon. Secretary.

ANSWERS TO QUERIES—Continued.

A. M. D. (Westbury) writes:—"I have just received a post-mortem report on a chick that died from Coccidiosis. I am uncertain whether this disease comes from the parent stock in this case or not. I was quite free from this disease or B.W.D. last year, and am breeding from the same stock, and two new hens in each of two pens (W. Wyandottes) and one new cockerel in one of the pens. All the new birds come from the same firm as the original stock. What I want to knew is, whether it is safe to breed from any of the stock, or whether the old stock will be likely to be infected by the new? Supposing the four new hens are carriers of Coccidiosis, does the male bird become infected, and through him the other hens in the pen? Can a cockerel be a carrier? I gather that if a chick lives in health for a week it has not been infected in the egg by Coccidiosis. It is said that it takes ten days for B.W.D. to develop if infected in the egg. I would be very much obliged for any suggestions about the safety of breeding from the parent stock. A neighbour has also had trouble from my eggs, and in his case the disease appeared the second day."—In reply to my correspondent's questions. Coccidiosis is not an inherited disease; a chick may survive an attack and even become a carrier, and pollute the ground through the excreta, but the chicks hatched from its eggs would not be infected chicks as is the case with B.W.D. It may be that none of his breeding stock are carriers, but wild birds are terribly subject to the disease, and they may have infected the ground, and there is some reason to believe (but I am not definite on this point) that wild rabbits cause the trouble. No, the male bird could not be infected through the hens, nor infect the other hens. The only thing that could be, is that any infected hen my correspondent might have would spear the eggs of the parasite through the excreta over the ground, and the other birds might pick them up, but an adult hen would be extremely resistant to the disease. Yes, a cockerel can be a carrier, but, as I have often said, he could only introduce it by polluting the ground. A chick cannot be infected in the egg by Coccidiosis. I am rather inclined to think that B.W.D. would develop more quickly if infected in the egg. I do not think my correspondent need worry about his parent stock. My suggestion to him is that he should endeavour to rear the young chicks intensively for the first six weeks if this is possible, as after that they are very much more resistant to the disease. His neighbour has not had trouble from the eggs if this has been coccidiosis.

R. A. (Castle Douglas) wishes to know if I can tell him if blood of which he can get a fresh supply daily would substitute fish or meat meal in his wet mash, and what I would consider a safe quantity to use. Blood is not a good substitute for fish or meat meal, for the reason that it is very deficient in the lime phosphates which are essential for egg production, and it is necessary that these should be supplied in some form. The best thing my correspondent can do will be to mix the blood with some middlings, make this into a cake, bake in the oven, and use to the extent of 15 per cent. in the mash. He should give some mineral supplement to supply the deficiency of lime phosphates.

D. T. (Pen.hisccber) writes:—"Having an intention of purchasing 100-egg size incubator, and as the question of price is a serious factor, do I think he would be justified in choosing the dearer of the four incubators he mentions?"—The names I am unable to give here, but in answer to his question I do not think he need choose the most expensive. The third on the list would be the best for his purpose. In answer to his second question, the Bresse are a suitable breed for intensive work.

A. B. C. (Knightsbridge) has been advised to give two quarts of sprouted oats a day in addition to the ordinary grain feed. He has about 45 hens, and he wishes to know if it is at all likely that he would get enough extra eggs to justify the expense. This would depend a great deal on whether he was able to supply his birds with plenty of fresh green food. If such is the case the sprouted oats would not be necessary. I cannot say whether the increase in the number of eggs is likely to be sufficient to justify the extra expense, but sprouted oats are a great factor in health, and health is a great factor in egg production, so "A.B.C." must judge for himself.

"Economy" (Scarborough) writes that he has 14 Wyandotte pullets, hatched in February, and the rest in March of last year. In July they laid 19 eggs, August 57, September 103, October 155, November 162, December 277, and to the 14th of this month 94. He is feeding as per instructions published in "Eggs," of which he is a regular reader. What he wants to know is whether I would advise him to run a cockerel with them this spring. The eggs have been small, but are getting bigger. One or two of the pullets have been broody, and he set one last month, and got ten fine chicks. He mentions the name of the breeder from whom he procured the eggs, and wants to know if I know whether her stock is good. He must be guided to some extent by the pullets themselves. If any are under-sized he should remove these from the breeding pen. This may be the case with those which began laying in July. He should certainly endeavour to get a cockerel from a large-egg strain, as it would help the size of egg. Whether the small egg is inherited or not I cannot definitely say, but I am of opinion that in his case it is, so that in buying a cockerel he should stipulate that it should be from large-egg parents on both sides, and if possible for some generations back.

M. M. B. (Somerset) has 150 laying fowls—Sussex, and White and Black Leghorns. What dry mash should she give them in the hopper? How much kibbled maize and wheat night and morning? She is hoping to rear quantities of chicks from these three breeds, and would I give her quantities of each grain for their grain feed when first hatched and then later. Also, what hopper mixture to give them?—I must first tell my correspondent that she must learn to feed by observation. It is impossible to say definitely what quantity of grain to give. For the adult birds approximately two ounces as the last feed, and just a handful between every five birds first thing in the morning as a scratch feed in the litter. The mash, assuming there is a plentiful supply of green food, could be made of:—2 lbs. good broad bran, 4 fine white middlings, 1 Sussex ground oats, 1 maize meal, and 1 meat and bone meal or fish meal. This should be always before the birds in hoppers. With regard to chicks, the following mash could be used:—21 lbs. bran, 10 alfalfa meal, 35 middlings, 24 Sussex ground oats, 14 maize meal, and 8 fish meal. This should be in the hopper always before them after the sixth day, and they should be given a dry chick feed made as follows:—42 lbs. cut wheat, 35 fine maize grits, 28 split groats, and 7 canary seed, after they are 48 hours old, up to the time they will require no food whatever. Again, my correspondent must be guided by the quantity they eat. After the sixth day, when they are put upon the mash, they should be given the grain feed merely as a scratch feed, except at night, when they should be allowed to eat as much as they will as the last feed. If possible skimmed milk should be given them to drink, or milk in some form, for at least the first six weeks.

(Continued at Foot of Next Column).

Correspondence.

THE MARKETING OF ENGLISH EGGS.

To the Editor of "Eggs."

Dear Sir,—I have read with much interest the articles and correspondence appearing from time to time on the marketing of English eggs. It appears to me that the terms "New Laid," "Fresh," etc., have fallen into such disrepute that a new designation is called for which could be put into general use.

Our principle advantage over our foreign rivals being our closer proximity to the markets, some description involving this all-important advantage TIME would seem to be desirable.

My own practise is to sell only "three-day" eggs, i.e., eggs not more than three days old at the time of the sale, and my eggs are plainly described as such.

In the case of private customers, I find they appreciate the eggs being date-stamped, showing date of being laid, but dealers, of course, dislike this.

At a local market I tried stamped eggs, but continually received a letter from the auctioneer suggesting I should discontinue doing so, as buyers had informed him they disliked buying eggs so marked.

As the Marketing Conference is approaching, I would suggest that the question of a new description for English eggs should be considered and also a definite grading nomenclature.

Eggs for sale could then be described as "3-Day Grade A" or "3-Day Grade B," etc.

Our Association now is of such proportions that if we all adopted some definite plan as suggested above, the public would soon become educated to discern the difference in the various classes of eggs and would, it is hoped, demand English eggs.

Yours faithfully,

G. G. P. H.

National Poultry Council.

The Quarterly Meeting of the National Poultry Jouncil was held in St. Mary's Hall, Coventry, on Thursday, January 21st, 1926, the President, Mr. Clem Watson, presiding over a fair attendance of lelegates.

Treasurer's Report.—Col. Sandbach, the Hon. Treasurer, subaitted his report, and mentioned the sum of £61 which had een collected by "George II.," Partridge Cochin, the proerty of Mr. Clem Watson, at the Wembley Exhibition, mostly n small sums.

Col. Sandbach stated that, in view of the fact that he would e abroad for the next two months, it was advisable to appoint a emporary treasurer. It was unanimously agreed that Mr. Clem Vatson should be asked to act.

Executive Committee's Report.—The report, which appears on nother page, was presented by Mr. Tom Newman, Chairman f the Committee. Special attention was directed to the finances f the Council, and to the concluding paragraph on the Rating f Agricultural Buildings.

National Poultry Diploma Board.—The report of the National 'oultry Diploma Board was presented by the Chairman, Mr. P. Iedworth Foulkes, who stated that the syllabus for the Teachers' Examinations in Poultry Husbandry was now ready, and a very urge number of enquiries had been received from the Board of ducation and County Authorities. The report was adopted.

Income Tax.—It was announced that the Inland Revenue had oandoned their appeal in the Hanson case. The Secretary ated that a very large number of letters on the difficulties ith regard to Income Tax had been received from all parts the country. It had been hoped that the decision in the dinburgh High Court would have been final, but the Revenue uthorities apparently did not think so.

The Marketing Conference.—The Secretary announced that rangements were fairly complete for the Conference on Marketg, to be held on January 27th. Great interest was being ken. There will be representatives from all parts of the untry. The Minister of Agriculture had promised to attend. r. Crowther expressed his regret that the invitation had not been ctended to educational bodies. He said, in poultry developents education must take a great part in any propaganda to nprove marketing.

A strong recommendation was made that all members of the ouncil should obtain a copy of the "Marketing of Eggs eport," issued by the Ministry of Agriculture.

The National Poultry Institute Scheme.—Mr. Francis read e report as to the progress of the work of the National Poultry istitute, which appears on another page.

A resolution from the Lancashire Federation relating to the ogress of the National Poultry Institute was withdrawn, in ew of the report presented by Mr. Francis.

Southern Breeding Station Committee.—Mr. Tom Newman oposed Mr. J. H. Hurst for the vacancy on this Committee, used by the resignation of the Rev. H. Mayall. This was conded by Mr. Oscar Brown, and agreed to.

World's Poultry Congress.—Mr. Brown made a strong appeal the members of the Council to induce their friends to attend e World's Poultry Congress, to be held at Ottawa in 1927. e said it would be the greatest thing of its kind which had er been held, and from every point of view it was desirable at Great Britain should send a representative body. He was opinion that everyone should go, as there would be much ey could learn.

Mr. P. Hedworth Foulkes moved:—"That affiliated societies, ıbs, federations, patrons, and poultry-keepers generally in each ea are urged to exercise all possible influence to secure the tendance of poultry instructors at the World's Poultry Congress, 27, and thus enable them to study the methods of breeding d production, and of instruction in Canada and the United ates." The resolution was unanimously agreed to.

The Rating of Agricultural Buildings.—It was pointed out that the Rating and Valuation Act of October, 1925, ensured that all agricultural buildings would have the same deductions as land has had previously, other, of course, than the dwelling house, and will come into operation in April, 1927.

Record of Performance Scheme.—The resolution of the Yorkshire Federation, which was proposed by Mr. Wainwright. It was pointed out that the scheme was being condemned without anyone having any definite idea as to its nature. Mr. Hamnett proposed that the scheme should be submitted by the Ministry to the National Poultry Council for consideration. This was seconded by Mr. Tom Barron, and was agreed to. Mr. Wainwright therefore decided to withhold that portion of his resolution referring to the scheme.

Laying Trials Committee.—Mr. Brownson, Secretary of the Laying Trials Committee, stated that at a meeting held the previous evening the Committee had agreed to recommend the Council to the establishment and publication of an Annual Register of the records of birds made in the Laying Trials. He moved this as a resolution on behalf of the Committee, seconded by Dr. Crowther, and carried unanimously, it being agreed that the Committee should have power to co-opt new members if desirable.

Arbitration Board.—Mr. G. A. Palmer moved a resolution to the effect that when any publicity has been given to a case before it is dealt with by the Arbitration Board of the National Poultry Council, the award should also be made public, unless the arbitrators themselves give a substantial reason why it should not. The resolution to be made retrospective. This was seconded by Mr. P. Hedworth Foulkes, and carried unanimously, after Mr. Palmer had fully explained his reasons for making the resolution.

Facilities on Railways.—The following resolution was moved, on behalf of the Poultry Club, by Mr. Lawrence Ardern, seconded by Mr. Grant, and carried:—"That, in view of the fact that cheap excursion tickets are issued to many summer shows, it is expedient that the same facilities be granted to all exhibitors and officials, many of whom have to travel to the show the day previous."

Bureau of Information.—The following resolution was also moved on behalf of the Poultry Club:—"That a Bureau be formed, at which particulars of Continental, Colonial and Foreign Shows generally may be obtained by would-be exhibitors. That arrangements be made for exhibits to be conveyed to, and supervised at such shows by a representative approved by the Poultry Club."

Mr. Ardern explained he was in some difficulty, as he knew little about the resolution, which created some amusement, and eventually it was decided that the person responsible should be asked to explain it at the next meeting of the Council.

Mr. Hamnett gave notice that he would move a resolution at the next meeting that all meetings of the National Poultry Council should be held at one or two centres, and a scheme should be devised of the pooling of fares on a third-class basis. Mr. Hamnett explained that this pooling scheme had been adopted in the Lancashire Federation.

It wa announced that an invitation had been received from the Mayor of Cambridge and the Vice-Chancellor of the Cambridge University for the next meeting of the National Poultry Parliament to be held there. It was unanimously agreed to accept the invitation. It was also intimated that a similar invitation had been received from Preston, but the representatives of the Lancashire Federation expressed their willingness to withdraw the invitation in view of the fact that it had not been possible to accept that from Cambridge last year.

Finance.—The following resolution was moved by Mr. P. Hedworth Foulkes:—"That it be of special instruction to the Finance Committee to consider the financial position, and that power be given to co-opt additional members if felt desirable, and to report to the next meeting of the Council." This was unanimously agreed to.

A vote of thanks to the Mayor and Corporation of Coventry for their courtesy in allowing the use of the hall for the meeting of the Council was proposed by Mr. Ardern, and seconded by Mr. Grant, and carried.

This concluded the business of the meeting.

MIDLAND FEDERATION SUBSCRIPTION PRIZE FUND SCHEME.

Following their Sixth Midland Poultry Festival, the Midland Federation of Feather and Fur Societies are busily engaged in preparing for their next great effort—namely, "The Subscription Prize Fund Scheme," which is being conducted by them with the object of raising the funds for an entirely New Laying Test and Instructional Poultry Plant near Birmingham, which is estimated to cost about £5,000, and is to be in readiness for next September.

This remarkable Prize Fund Scheme takes the form of an estimating competition, and during the last three years over 57,000 subscribers have sent donations of one shilling to help to forward the Federation Funds.

The present Subscription Prize Fund Scheme included over 700 prizes to be awarded to successful ticket holders, the First Prize being an Austin 7 H.P. Touring Car, value £149; the Second Prize, a 7 H.P. A.J.S. Motor Cycle and Sidecar Combination, value £80; the Third Prize, a Lady's or Gent's Raleigh Cycle, value £10 10s; the remaining prizes include Poultry Houses, Incubators, Brooders and Foster Mothers, Spraying Machines, Oat Sprouters, Eggometers, and Caponising instruments, 50 bags of good quality Scratch Grain Food, 175 ½-cwt. bags Laying Mash, 50 ½-cwt. bags Buttermilk Growing Mash, and 250 dozen Hatching Eggs and Day-old Chicks, the total of the prizes being between £700/£800.

The Committee of the Midland Federation will very gratefully appreciate all the help that the subscribers can give them in their tremendous effort to achieve their objective from the results of the previous scheme which is promoted particularly in the interests of a small poultry-keeping public in Birmingham and the Midlands, organised to disseminate more practical information on scientific poultry-keeping, and to more fully interpret its important part in the British poultry industry.

Poultry breeders who have received books of tickets are urgently requested to push them amongst their friends, and to see that they are returned as soon as possible, closing date for this Prize Fund Scheme being February 6th next, which is the last day for posting.

Owners are asked to kindly return all books of tickets that are already subscribed, together with the counterfoils and subscriptions, at their earlier convenience.

It is to be regretted that, though the recent Midland Poultry Festival was such an overwhelming success as far as the educative side was concerned, the expense in promoting such an enterprising venture did not receive the public support from visitors which it deserved, with the result that the promoters have to meet a big financial responsibility, which in this instance will cost them to make up a deficit over £200; thus the need for a little more striving and increased effort is required to help this Midland poultry-keepers' organisation progressive work. The Midland Federation has a happy band of voluntary workers at its head, and to help them overcome their difficulty send at once for a book of tickets, which may earn you anything from a motor car to a sitting of eggs.

The Hon. Organising Secretary, Albert H. Brain, of 63, Old Meeting Street, West Bromwich, will be pleased to forward a book of tickets and full particulars to any one on request.

HERTS COUNTY EGG-LAYING TRIALS.

Report to end of 3rd period of 28 days, 10th December, 1925, to 6th January, 1926.

Figures are Eggs and Points to date respectively:—

Section 1 (Open to Any Breeder in the County).—Division A—Any Light Breed (6 pullets).—Mr. Hedley Morgan (W.L.), 304, 2,930; Mrs. E. Charles (W.L.), 305, 2,915; Hoo Poultry Farm (W.L.), 206, 2,173.

Division B—Any Heavy Breed (6 pullets).—Dr. Douglass (W.W.), 324, 3,339; Mr. J. P. Morgan (W.W.), 244, 2,512; Mr. Hedley Morgan (W.W.), 243, 2,509.

Section 2.—Open to Poultry-keepers whose total Laying Stock does not exceed 150 head).—Division A—Any Light Breed (3 pullets).—Dr. Douglass (W.L.), 162, 1,607; Mr. J. Burnett (Bl. L.), 47, 454.

Division B—Any Heavy Breed (3 pullets).—Mr. W. Lloyd (W.W.), 129, 1,308; Mr. Walrond (W.W.), 124, 1,225.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

KEIGHLEY AND DISTRICT BRANCH.

Mrs. Vowles, Beninbrough, York, paid our society a visit on the 20th January, and delighted the members and friends with an address on "Commercial Poultry Farming." Mr. Frank Snowden presided, and, in his opening remarks, said he thought it scarcely necessary to introduce Mrs. Vowles, as those present who did not know her personally, would know her by name as the Hon. Secretary of the Yorkshire Federation Laying Test in the first year of its inception, and who to a great extent was responsible for its success.

Mrs. Vowles said it had given her great pleasure to visit the Keighley Branch of S.P.B.A. She had heard so much about it, and it was looked upon as a live wire in the poultry industry. Mrs. Vowles is a practical poultry-keeper; having started with ten birds as an experiment, she now has between 2,000 and 3,000 head of stock, and assured the members that poultry-keeping on the right lines could be made to pay. In view of her practical experience she was able to give some sound advice, and point out the pitfalls to new beginners and those wishing to extend. Her address touched upon finance, housing, stock birds, storing of eggs for incubating, rearing, and marketing of produce. At the conclusion of the address Mr. J. H. Brayshaw proposed a hearty vote of thanks to Mrs. Vowles. He said he had been looking forward some time to this address, and appreciated it all the more because Mrs. Vowles' favourite breed for commercial purposes was also his choice. Mr. J. W. Towler seconded the proposal, which was carried in true Yorkshire style.

After Mr. and Mrs. Vowles had left for their three hours' drive home, Mr. Snowden read the report of the third annual general meeting of the Yorkshire Federation of Poultry Societies, which was held at York on December 19th, 1925, and afterwards mentioned his visit to the Liverpool Branch of S.P.B.A., and delivered the kind greetings he had been asked to convey from that society.

Upon being pressed to give a lecture to our society, Mr. Snowden promised to address the members on Wednesday, March 3rd, 1926, on "The Building Up of a Pedigree Laying Strain." The meeting closed in the usual way—that is, with members crowding round Mr. Snowden for advice.

Yours faithfully, A. WILSON.

SOUTHERN IRELAND TEST.

EGG-LAYING COMPETITION, 1925-26.—(Hens and Ducks.)

Result of Period, 16th October to 31st December, 1925.

Section 1 (Non-Sittters).—Mr. McGuire, Dublin (W.L.), 227 eggs; Miss Lena Murphy, Whitechurch, Co. Cork (W.L.), 227; Mr. and Mrs. Ormsby, Lisburn, Co. Down (Bl. L.), 219; Capt. Maxwell S. Close, Armagh (W.L.), 219; Capt. R. G. Ferguson Kelly, Tallaght, Co. Dublin (W.L.), 192; Mrs. Helen H. Briscoe, Loughall, Co. Armagh (W.L.), 205.

Section 2 (White Wyandottes).—Mrs. Strong, Moats House, Kells, Co. Meath, 312 eggs; Mrs. Chearnley, Ballyfeard House, Ballyfeard, Co. Cork, 304; Mr. O. J. Murphy, Millview Poultry Farm, Malahide, 302; Lady Dunleath, Ballywater Park, Co. Down, 304; Mrs. J. M. Walsh, Ballyvoreen House, Murroe, Co. Limerick, 300; Mrs. R. Croasdaile, Rynn, Rosenallis, Mountmellick, 289.

Section 3 (Heavy Breeds, other than White Wyandottes).—Mr. F. Stuart Brown, Bagenalstown (L.S.), 314 eggs; Mrs. D. C. Chearnley, Salterbridge, Cappoquin (R.I.R.), 303; Mrs. B. Byrne, Jenkinstown, Kilkenny (R.I.R.), 259; Mrs. M. Connolly, Kildare (R.I.R.), 242; Mrs. J. Kirkwood Hamilton, Beltyville, Raheny (R.I.R.), 236; Miss G. Stuart Reeves, Newbridge (R.I.R.), 213.

Duck Competition (4 Ducks to each pen).—Mrs. M. Cruite, Kilkenny (F. and W.R.), 179 eggs; Mrs. M. Benson, Cookstown, Tyrone (F. and W.R.), 176; Mrs. A. McGrath, Kilkenny (F. and W.R.), 136; Mrs. M. Warwick, Ballymena (F. and W.R.), 129; Miss M. Cremin, Newmarket, Co. Cork (F. and W.R.), 98; Mr. M. J. Dooley, Moylough (F. and W.R.), 13.

EGG-LAYING TEST—THE GLOUCESTERSHIRE REPORT.

FIGURES FOR DECEMBER.

The following report on Gloucestershire Laying Test (under the supervision of Mr. L. G. Price, County Instructor in Poultry-keeping) for the third month ended January 1st.

During the month 3,877 eggs have been collected, against 4,265 the previous month, giving a total of 12,281 for the three months and an average of 38.3 per pullet. For comparison the total number of eggs for the first three months of last year's test was 10,463 with an average of 32.8.

The weather for the month under review has been abnormally wet, and a fairly deep fall of snow has been recorded; the latter, as is natural upon the Cotswold Hills, remained for a considerable period.

Figures are Total Points to date:—

Section A (1).—White Wyandotte (Professional) (Five birds constitute a Pen).—T. L. Davies, 1,468; G. W. H. Roberts, 1,439; P. M. Hinton, 1,257; H. W. Fowles, 1,206, H. C. R. Ludlow Hewitt, 1,108; *Miss D. Jones, 994. *Denotes one death.

Section E (2).—A.O.V. Heavy Breed (Professional).—C. D. Pratt (B. Rk., 1,520; G. H. H. Simmons (B. Rk.), 1,428; G. B. Metcalfe (R.I.R.), 1,395; D. K. Nuttall (R.I.R.), 1,224; Miss M. Lawrence (B. Rk.), 1,194; M. C. Beale (R.I.R.), 1,166.

Section A (3).—White Leghorn (Professional).—Sherborne Park P.F. (36), 1,294; G. W. H. Roberts, 1,225; Bibury P.F., 1,212; Sherborne Park P.F. (1), 1,192; Miss H. Baylis, 1,106; J. L. Brown, 1,087.

Section A (4).—A.O.V. Light Breed (Professional).—Capt. W. E. Anderson (Anc.), 1,114; F. W. Clifford (B.L.), 1,000; J. L. Brown (Anc.), 895; Churchdown P.F. (Anc.), 623; E. S. Coley (Ex. Leg.), 559.

Section B (1).—A.V. Heavy Breed (Confined to owners of not more than 50 laying head).—G. D. Bond (W.W.), 1,437; W. P. Merrett (W.W.), 1,205; E. A. Craft (L.S.), 1,180; E. G. Brown (W.W.), 825; J. C. Dee (R.I.R.), 700; Maisemore Schools (W.W.), 543.

Section B (2).—A.V. Light Breed (Confined to owners of not more than 50 laying head).—E. G. Brown (W.L.), 719; C. E. Skirten (W.L.), 589; F. E. Fowler (Br.L.), 541.

Pen Duck Section (Four ducks to a pen).—S. J. Phillips (K.C.), 139; G. H. H. Simmons (K.C.), 128; G. B. Young (K.C.), 128; Major J. G. Dugdale (K.C.), 116; Mr. H. L. Hanks (K.C.), 104; F. W. Clifford (K.C.), 33. Miss A. Rigby—Magpies: Birds have not yet commenced to lay.

Single Pen Section.—Section 1.—White Leghorns.—L. Grist (14), 340; Fielding Smith (4), 325; A. Daunton, 283; Lt.-Col. Hancock, 248; Misses Ransford (17), 240; Fielding Smith (45), 219.

Section 2.—White Wyandotte.—H. W. Stephens (30), 345; Miss H. Baylis, 315; L. Grist, 290; H. W. Stephens (28), 278; A. W. Harrison, 270; H. W. Fowles (39), 275.

Section 3.—Rhode Island Red.—F. A. Welch, 317; M. C. Beale, 290; Miss M. Lawrence, 155; A. Daunton (46), 155; Messrs. Wood and Bacon, 125; W. Bingle, 90.

Section 4.—A.O.V. Light Breed.—R. Sysum (Br. L.), 214; White and Martyn (B.L.), 121; Churchdown P.F. (B.L.), 60.

Section 5.—A.O.V. Heavy Breed.—Mrs. E. Weinholt (Aus. Orp.), 315; G. H. Simmons (B. Rk.), 255; G. B. Young (L.S.), 245; J. G. Herbert (B'Veld), 228; F. R. Welch (L.S.), 215; Philip Clapham (B. Rk.), 210.

Section 6—Ducks.—H. L. Hanks, 81; Major J. G. Dugdale (3), 78; H. W. Fowles (2), 71; Mr. and Miss Streatfeild, 68; F. W. Clifford, 60; Major J. G. Dugdale (4), 60. All Khaki-Campbells.

(Signed) R. A. & A. M. Johnson.
The Cotswold Poultry Farm, Chalford.

H. S. WRIGHT, Hon. Sec.

LEICESTERSHIRE COUNTY COUNCIL.

EDUCATION COMMITTEE. COUNTY LAYING TRIALS.

Third Monthly Report for the period—December 14th, 1925—January 10th, 1926.

The weather conditions during the past month have again been very varied in character, cold and frosty during the first part followed by a considerable amount of rain with a higher temperature Despite these varied conditions all the birds have kept in good health, and there has been a steady increase in egg production. The increase has been mainly from the heavy breeds, for the light breeds have been more affected by the weather. During the eleventh week of the trial 523 eggs were laid. the total for the twelve weeks being 5,411. The eggs continue to be of good size, and very few non-scoring eggs have been laid A few birds are still in a slight moult, and three birds have been broody.

Leading Pens at the end of the Third Monthly Period.
Figures are Eggs and Points to date respectively.

Section A. Light Breeds (Five Birds).—Mrs. R. Crawford (W.L.), 245, 2670; Mr. Geo. Ryle (W.W.), 218, 2352; Mr. A. C. Moore (B.L.), 217, 2295; Mr. H B Howe (Bl. Min), 216, 2198.

Section B. Heavy Breeds (Five Birds).—Mr Geo. Kyle (W.W.), 245, 2692; Mr. H. B. Howe (W.W.), 260, 2622; Mr. J M. Salmon, (R.I.R.), 233, 2582; The Misses Rankin (W.W.), 257, 2520; Mrs. E. Ball (R.I.R.), 231, 2499; Mr. M. Norton (R.I.R.), 212, 2269.

Section C. Any Breed. (Two Birds).—Mr B. J. Buckler (R.I.R.), 111, 1221; Mr. W. H. Stevens (R.I.R.), 89, 956; Mr. S. Ryle (R.I.R.), 77, 909; Miss T. E Dear (R.I.R.), 73, 843; Mr. H. Glover (W.L.), 71, 806; Mr. R. J. Sadler (R.I.R.), 99, 713

BOARD OF AGRICULTURE FOR SCOTLAND.

EGG-LAYING TEST, 1925-26.

Report for the Second Period—12th Nov. to 9th Dec., 1925.

With the exception of two fresh days at the end of the second period of four weeks, severe wintry weather was experienced, there being keen frost (covering the ground with a thick rime), northerly winds, sleet and snow. Owing to these conditions the pullet sections were run entirely on the intensive system. The health of the birds was good. Moulting was still prevalent—especially among the White Leghorns—92 pullets and 21 ducks being in moult. Two birds were removed to broody coops during the period. The total number of eggs produced during the period was 5,123, an average of 9.92 per bird as compared with 4,314 and an average of 8.36 per bird last month, the average per bird since the beginnnig of the test standing at 18.28. The heavy moult and the severe weather conditions are reflected in the lower egg production this year as compared with the corresponding period last year.

As a result of the weather conditions there was a decrease in the egg yield in the duck section, the total for the period being 286, an average of 3.01 as compared with 394 and an average of 4.01 last month. The highest scoring pen was No. 2 (Khaki-Campbell), belonging to Mr. O. C. Brown, which laid 87 eggs and scored 59 points. The highest individual record was 20 eggs, laid by Duck No. 41, pen 7 (Khaki-Campbell), belonging to Mr. G. H H. Simmons.

Egg production of leading pens at end of second period—9th December, 1925. Figures are Eggs and Points respectively:—

Section 1. White Leghorns.—J. Prentice, Uddingston, 178, 168; J. B. V. and W. Cummings, Penicuik, 168, 165; R. Paterson, Ingleston, Denny, 163, 161.

Section 2. White Wyandottes.—Lady V. Astor, Meikleour, 206, 205; S. E. S. Burnett, Colliston, Arbroath, 166, 165.

Section 3. Rhode Island Reds.—Mrs. M. Iogan, Kirkland, West Kilbride, 151 151; D. Drummond, Kirkliston, 194, 147.

Section 4. Non-Sitters other than White Leghorns.—J. Huntly and Son, Coldstream, 157, 153; White Heather Poultry Farm, Tullibody, 145, 139.

Section 5. Sitters other than in 2 and 3.—The Misses Davidson and Chisholm, Gollanfield, 240, 236; Miss Harrison Bell, Welwyn, 172, 171.

Section 6. Ducks.—O. C. Brown, Scunthorpe, Lincs., 87, 59; Miss Harrison Bell, Welwyn, 69, 54.

WYE COLLEGE COUNTIES LAYING TRIALS, 1925-26.

(KENT C.C. AND SURREY C.C.),

Held at the South-Eastern Agricultural College, Wye, Kent

Report for Third Period—10th December, 1925 to 6th January, 1926.

The weather conditions throughout the third period of four weeks have been very varied, with heavy rain and mists the more general order. The birds, nevertheless, continued to improve their rate of production, and finished with 521 eggs above the previous period. The number of eggs produced during the period was 3,629, bringing the total of eggs laid to date to 9,665.

Twenty-six birds are still in moult, and another nine birds have been broody during the period. Fourteen birds have not yet commenced to lay.

Figures are Eggs and Points respectively.

KENT.

White Leghorns.—Dr. Harbord, 231, 2498; W. K. Martin, Esq., 188, 2157.

White Wyandottes.—Messrs. F. and T. Neame. 273, 2923; H. M. Moore, Esq., 260, 2837.

Rhode Island Reds.—Misses Jones and Atkins, 249, 2619; P. C. Hills, Esq., 233, 2371.

Light Sussex.—Dr. Harbord, 239, 2306; Mrs. M. C. Cowan, 223, 2305

A.O.V. (Sitting Breed).—Messrs. Campkin Bros., 208, 2125; Mrs. M. Crookes, 148, 1647.

SURREY.

White Leghorns.—J. B. Bantoft. Esq., 273, 2822; Lady Lugard, 257, 2685.

White Wyandottes.—H. J. Willis, Esq., 314, 3226; Burrows Lea Poultry Farm, 282, 2864.

Rhode Island Reds.—A. Brown, Esq., 245, 2532, A. Kirsch, Esq., 233, 2478.

Light Sussex.—H. W. Homewood, Esq., 224, 2248; Miss E. M. McGaw, 204, 2080.

Competitors and others may visit the trials on Wednesday afternoons by appointment only.

J. VERDIN, Trials Manager.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 22nd JANUARY, 1926.

GRAIN AND FEEDING STUFFS.—Fair offerings of British wheat meet a dull trade and prices have again declined, the average quotation being 12s. 4d. per cwt., as compared with 12s. 6d. last week. Imported wheat is more freely offered and in little demand at lower figures, No. 1 Manitoba averaging 14s. 9d. per cwt. as against 15s. 2d. in the previous week. Trade for feeding barey is slow, but home-grown maintains recent prices, while imported is slightly cheaper. Fair supplies of English oats meet with little inquiry and lower rates are quoted at most markets, while imported generally sell at about recent quotations. Maize is in good suppy and cheaper, Argentine averaging 8s. 1d. per cwt. as compared with 8s. 7d. a week ago.

Milling offals generally realise less money, bran being reduced 5s. per ton at most centres, while coarse middlings at Bristol and London are 7s. 6d. and 2s. 6d. per ton respectively cheaper on the week. Meals are in little request, and both barley and maize meal sell at lower figures. Oil cakes are inactive, and prices have declined at all markets except Bristol, where recent rates are maintained.

MILLERS' OFFALS.—Bran (British): Bristol, £8 5s; Hull, £8 2s; Liverpool, £8; London, £7. Broad Bran: Hull, £9 12s; London, £9. Middlings:—Fine (Imported): London, £8 7s; Coarse (British): Bristol, £8; Hull, £8 10s; Liverpool, £8; London, £7 7s. Pollards (Imported): Bristol, £6 10s; Hull, £6 5s; Liverpool, £6 7s; London, £6 12s. Rice Bran: Bristol, £7 7s; Liverpool, £6 15s. MEAL.—Barley Meal: Bristol, £9 10s; Hull, £9 10s; London, £10 2s. Maize Meal: Bristol, £10; Hull, £9 7s; Liverpool, £9 7s; London, £10. Maize Meal (S. African): Bristol, £9 7s; Hull, £8; Liverpool, £8 2s; London, £8 10s. Maize Germ Meal: Hull, £9; London, £8 5s. Maize Gluten Feed: Bristol, £10 12s; London, £9 15s. Locust Bean Meal: Bristol, £9 15s; Hull, £10; Liverpool, £9 10s; London, £9 12s. Bean Meal: Bristol, £13 10s; Hull, £12 2s; London, £12 5s. Fish Meal: Bristol, £21 10s; Hull, £20 10s; Liverpool, £20; London, £20.

EGGS AND DEAD POULTRY.

Eggs continue to be neglected, and, with full supplies on offer, the downward trend of prices continues. Selected imported eggs have been reduced this week by as much as 1s. to 3s. per 120, in some instances, and the best continental coloured eggs are now offered at about 25s. per 120. Lighter offerings of dead poultry are in moderate request at fully last week's figures.

Week-end Prices—Eggs (per 120): British, 22s 0d; Irish, 21s 0d, 20s 0d; Danish, 25s 6d, 23s 9d; Dutch, brown, 25s 6d, 24s 6d; Dutch, mixed, 22s 6d, 21s 6d; French, brown, 25s 0d, 24s 0d; French, mixed, 21s 0d, 20s 0d; Belgian, 20s 6d, 19s 6d; Italian, 20s 6d, 19s. 0d; Egyptian, 9s 9d, 9s 3d; Moroccan, 13s 0d, 12s 6d; Polish, 16s 0d, 15s 0d: Chinese, 13s 0d, 11s 6d; Russian, 15s 0d, 14s 0d; Australian, 17s 0d, 16s 0d; Argentine, 14s 0d, 13s 0d; Styrian, 17s 0d, 15s 0d; Californian, 15s 6d, 14s 6d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 8d, 1s 6d; Irish, 1s 4d, 1s 3d; Others, 1s 6d, 1s 4d. Ducks, 1s 6d, 1s 3d. Geese, 1s 3d, 1s 1d. Turkeys, 1s 8d, 1s 5d.

EGGS.

Per Doz.—Ashford: First, 2s 3d; Second, 2s 0d. Birmingham: First, 2s 3½d; Second, 2s 3d. Bridgwater: First, 2s 6d; Second, 2s 3d. Chelmsford: First, 2s 1¾d; Second, 1s 11½d. Colchester: First, 2s 3½d; Second, 2s 1¼d. Doncaster: First, 2s 8d; Second, 2s 6d. Dorchester: First, 2s 3d; Second, 2s 1d. Exeter: First, 2s 2d; Second, 2s 0d. Hereford: First, 2s 3d; Second, 2s 2d. King's Lynn: First, 2s 5d; Second, 2s 3d. Llandilo: First, 2s 3d; Second, 2s 2d. Mold: First, 2s 7d; Second, 2s 6d. Newport (Mon.): First, 2s 6d; Second, 2s 4d. Norwich: First, 2s 7d. Oswestry: First, 2s 4d; Second, 2s 3d. Penzance: First, 1s 10d; Second, 1s 9d. Saffron Walden: First, 2s 3½d; Second, 2s 0d. St. Ives (Hunts): First, 2s 6d; Second, 2s 4d. Salisbury: First, 2s 1½d; Second, 2s 0½d; Skipton: First, 2s 3d. Truro: First, 1s 9d. Welshpool: First, 2s 0d; Second, 1s 10d. *Carlisle: First, 2s 6d. *Derby: First, 2s 6d. *Ipswich: First, 2s 4d; Second, 2s 0d. *Lincoln: First, 2s 3d. *Shrewsbury: First, 2s 3d; Second, 2s 1d. *York: First, 2s 8d; Second, 2s 7d.

FOWLS.

Per lb.—Birmingham: First, 1s 3d; Second, 10d. Doncaster: First, †5s 6d; Second, †5s 0d. Exeter: First, 1s 5d; Second, 1s 3d. Hereford: First, 1s 3d. Llandilo: First, 1s 7d; Second, 1s 4d. Newport (Mon.): First, 1s 6d; Second, 1s 2d. Truro: First, 1s 4d. Welshpool: First, 1s 6d; Second, 1s 3d. *Derby: First, †6s 6d; Second, †3s 6d. *Ipswich: First, 1s 8d; Second, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d. *York: First, †6s 0d; Second, †5s 6d.

(Continued at Foot of Next Column.)

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, January 27th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

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Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.

We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

DUCKS.

Per lb.—Birmingham: First, 1s 3d; Second, 1s 0d. Doncaster: First, †6s 6d; Second, †5s 6d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 3d. Llandilo: First, 1s 7d; Second, 1s 4d. Welshpool: First, 1s 6d. *Derby: First, †6s 0d; Second, †4s 0d. *Ipswich: First, 1s 6d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

*At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers . † Per head.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, FEBRUARY 3rd, 1926.

Editorial.

THE POULTRY INDUSTRY IN 1925.

By EDWARD BROWN, F.L.S.,
General Secretary, National Poultry Council.

That there has been a considerable increase in the number of poultry kept in the United Kingdom within the last few years is, in the aggregate, undoubtedly the case. We have only, however, on holdings enumerated in the agricultural statistics—that is, of an acre and upwards, regained the averages of pre-war days. The Census taken on June 4th last revealed in England and Wales a slight increase in adult fowls, and an advance of 18 per cent. of birds hatched in 1925, as compared with 1908. Of adult ducks there was an increase of 30 per cent., of adult geese a decrease of nearly 50 per cent., and of adult turkeys a decline of 40 per cent. In Scotland there was a serious declension in 1925 as compared with 1908—namely, of adult fowls upwards of 30 per cent., of ducks by 25 per cent., of geese by nearly 48 per cent., and of turkeys by 47 per cent. These returns do not include smaller occupations than an acre, which, if included, would modify the results. Taking poultry of all kinds, in 1925 there were only 6·73 adults in England, in Wales 6·66 adult birds, and in Scotland 5·14 adult birds per ten acres of cultivated land. In Northern Ireland the average was 16·53 adults per ten acres. The maximum in English counties was in Lancashire with 20·64 adult birds per ten acres, and the minimum Northumberland with 2·87 adults for the same area of cultivated land.

One of the most satisfactory features during 1925 was the growing interest taken by farmers in egg and poultry production. One piece of evidence is the fact that county branches of the National Farmers' Union have, in several cases, formed Poultry Committees. It may be hoped such will become general. For nearly half a century my desire has been to see developments on these lines. If farmers rose to their opportunities the country would be self-supporting in this branch of food supply. They would find, as many have already done, that poultry are more profitable than any other class of farm stock. The reports published by Cambridge and Leeds Universities as to the economics of farms within their respective areas have fully justified what is here stated. The chief weakness is in lack of effective organisation for marketing in the rural districts.

By the courtesy of the Ministry of Agriculture I am enabled to give the estimated values of the three leading grain crops for the harvest of 1925. At the same time I have worked out the value of egg and poultry production on the basis of 100 eggs per hen per annum, which is very low. The birds recorded in the Census as hatched in 1925 may be taken as representing the home table poultry supplies. A reasonable computation is that upon occupations of less than an acre the output is one-third that of farms. The comparisons are as follows :—

ESTIMATED RELATIVE PRODUCTION IN ENGLAND AND WALES, 1925 :—

Wheat	£16,083,000
Barley	£11,123,000
Oats	£13,470,000
Eggs and Poultry	£23,779,000

It will be seen, therefore, that the poultry production value was in 1925 greater by 47·85 per cent. (£7,696,000) than the wheat crop, 112·88 per cent. (£12,556,000) above the barley crop, and 76·53 per cent. (£10,309,000) in excess of the oat crop in the same year.

In many districts the repressive influence arising as a result of the killing of poultry by foxes has been greater than at any previous time. Great though the actual loss is in the aggregate, that is small as compared with the check to production. Not a few farmers and smallholders who might otherwise increase their flocks of poultry do not take the risk of serious loss for that reason. Others merely keep a few birds around the homestead mainly for supply of their families, instead of distributing over the land as part of the crop and stock rotations. Whilst in a few cases, thanks to the efforts of the National Poultry Council and the Masters of Foxhounds Association, some compensation has been obtained, that does not cover the actual loss incurred, to say nothing of the repressive influence referred to. Hunting men have no right to expect poultry-keepers to help pay for their sport, as many appear to do. In many sections of the country hunting should be prohibited and foxes exterminated as vermin. In that respect those engaged in poultry husbandry have been long suffering to an extent not generally recognised. In several instances struggling men have been ruined, and as adequate compensation is often refused a very bitter feeling has arisen throughout the country. It is not to be wondered at that measures are being taken by poultry-keepers to protect themselves. Losses by the depredations of dogs have increased greatly, the law in respect to which requires to be amended.

There is no means of arriving at the actual average values of home eggs and poultry. The official figures issued are based on weekly prices without taking into account quantities. Import returns, however, assist us in that direction. A fair computation can be arrived at by the values of supplies from Ireland, Denmark and the Netherlands. It will be seen below that prices have been maintained at rates which are fair to producers and consumers. These are now on a commercial basis, and profits made are an encouragement to those engaged in this business and such as contemplate taking it up. We have arrived at normality. What is required most of all is that attention should be paid to raising the standards of home supplies, especially in view of the regulations adopted in Northern Ireland first, and later by the Free State, as well as some of the Colonies, to ensure that eggs exported shall be of a high grade in quality and size. Competition from these countries is keener than ever before. This question is most important, for recent years have marked a serious decline in size of eggs and by weakness of shells, owing to the increase of average laying. A large yield is desirable if with it is associated size and quality. That and the marketing on the best lines, together with greater rigidity in the breeding, demand constant attention. The "Report on Egg Marketing in England and Wales," just issued by the Ministry of Agriculture and Fisheries, is a notable and valuable contribution towards solution of this problem. During a visit to America this year I found that intensification has been followed by loss of colour in the yolks, and, therefore, of food quality. There are signs of the same in this country, which need to be counteracted.

References have been made in previous annual reports, of which the present is the thirty-first, to the attempts made by the Inland Revenue to deny poultry farmers the concessions granted by the Legislature to general farmers in respect to income tax, and by local authorities to rates. In spite of decisions by commissioners all over the country, and an important judgment in the Edinburgh High Court by four judges, to the effect that poultry farming is husbandry within the meaning of the Finance Acts, the authorities at Somerset House have continued their attempts to compel poultry-keepers to pay on an industrial basis. For nearly two years a test case has been pending. For some unexplained reason it has been held back and finally withdrawn by the Inland Revenue, on the ground that another case is to be pressed forward. Such action by a great public department is most reprehensible. Poultry farmers are citizens and are prepared to meet claims upon them which are in accord with the law. They ask to be treated fairly. Recognised as farmers by the Ministries of Agriculture and Health, and required to conform to their requirements, they have a right to demand that the Inland Revenue shall give the same recognition. The National Poultry Council is fighting in the interests of home food production and producers.

During the year under review the National Poultry Institute Scheme has made marked progress, and the central Institute at Harper Adams, Newport, Salop, will soon be completed. Meanwhile advance teaching and important experimental work have been commenced. The breeding stations at Reaseheath, Cheshire, and Wye, Kent, and the Breeding and Nutrition Research Laboratories at Cambridge University are proceeding with their investigations. At the Ministry of Agriculture's Veterinary Research Station, Addlestone, Surrey, important work is in progress dealing with diseases of poultry. The menace of disease is very serious, following upon a great increase in numbers and adoption of more concentrated methods. The need for such research is evidenced by the fact that several outbreaks of disease have been noted during the year, although these have been overcome.

The production of table poultry, which was so heavily hit during the war and post-war periods, has, in respect to chickens, recovered to a large extent, and there is a constant and profitable demand for good quality birds. The output of geese and turkeys is still much below pre-war days. So far as the last-named are concerned, farmers are failing to seize their opportunities.

During the year exhibitions have made considerable advance, both in numbers and influence. It is most satisfactory to record the greater recognition of production values in the stock. Thanks to the National Poultry Council the sections into which poultry husbandry is divided have been brought closer together than at any previous period. Laying trials have increased in popularity, and some remarkable records have been made with both hens and ducks. They have, however, revealed tendencies to loss of constitutional vigour in the highly fecund birds, and to decrease in size of eggs. The registration of these trials by the National Poultry Council is an important step with the object of making them more uniform and reliable.

The Trade and Navigation Returns for 1926 supply information as to imports into the country, from which the following calculations have been made, and the comparative figures for 1924 and 1925 :—

QUANTITIES OF EGGS IN SHELL IMPORTED INTO GREAT BRITAIN AND NORTHERN IRELAND, 1924 and 1925.

Country of origin.	1924. Gt. Hds.	1925. Gt. hds.	Increase or Decrease. 1925 over 1924.
Lithuania	300,552	211,721	dec. 29.55 p.c.
Denmark	6,044,743	5,836,491	dec. 3.44 p.c.
Poland (including Dantzig)	730,571	1,067,720	inc. 46.15 p.c.
Netherlands	1,234,682	1,691,631	inc. 37.09 p.c.
France	60,301	232,359	inc. 385.33 p.c.
Italy	422,039	525,354	inc. 24.48 p.c.
Serb, Croat Slovene State	53,819	75,097	inc. 39.53 p.c.
Egypt	1,624,460	1,161,046	dec. 28.52 p.c.
China	1,033,313	1,101,433	inc. 6.69 p.c.
United States of America	135,394	88,084	dec. 34.84 p.c.
Irish Free State	4,686,834	4,566,578	dec. 2.57 p.c.
Canada	270,831	246,037	dec. 9.15 p.c.
Other countries	3,681,960	5,170,491	inc. 40.42 p.c.
Totals	20,279,499	21,974,042	inc. 8.35 p.c.

So far as the increases are concerned, the most notable in actual volume are Poland, where the poultry industry has increased very rapidly since the war, the Netherlands and Other Countries, which latter include sections of the British Empire and the Argentine, all of which are South of the Equator, having, therefore, a great seasonal advantage in that the period of maximum production is our time of scarcity. The French increase is explained by the drop due to prohibition of exports in 1924. Egypt shows a heavy decrease and Denmark a small one, the latter of which is explained by a greater export to Germany. The total bulk is 26,368 millions, or with the cases a little over 183,000 tons.

My next table gives the values of eggs imported in 1925, together with the average declared price per great hundred for that year and 1924 :—

TOTAL AND AVERAGE DECLARED VALUES OF IMPORTED EGGS.

Country.	Totals. 1925. £	Average Values per Gt. Hundred. 1924. s. d.	1925. s. d.
Lithuania	122,144	12 7¼	11 6¼
Denmark	5,491,744	18 2¼	18 9½
Poland (including Dantzig)	634,039	11 9½	11 10½
Netherlands	1 409,647	16 7¼	16 8
France	156,000	12 3	13 5
Italy	451,685	16 4½	17 2¼
Serb, Croat Slovene State ...	45,947	12 0¾	12 2¾
Egypt	546,313	10 7	9 4¾
China	667,693	12 9¾	12 1½
United States of America .	75,949	17 6	17 2¾
Irish Free State	3,298,460	14 4¼	14 5¼
Canada	217,839	18 2¾	18 6¼
Other Countries	3,543,050	14 6	13 8½
Totals	16,660,510	15 3	15 7½

It is seen, therefore, that the average declared values were 4½d. per great hundred above those of 1924, which, however, were 2s. 5¾d. per great hundred in advance 1923. The increase of total values is thus due to larger imports. The variations in prices are suggestive, and are in some instances due to relative supplies in the months of scarcity. Any country which does not preserve or cold store eggs, except those South of the Equator, loses to a considerable extent. That is apparently the reason for the comparatively low average for eggs from the Irish Free State. It will be of interest to see whether there is any change when the new export regulations become effective.

The imports of dried and liquid eggs, after deducting re-exports, were as under for the last three years :—

	Quantities. cwts.	Values. £	Per cwt. s. d.
1923	482,580	2,803,670	116 7
1924	469,886	2,542,964	108 3
1925	519,517	2,792,721	107 4

It is stated that almost all of these (98 per cent.) came from China.

Imports of live and dead poultry into Great Britain and Northern Ireland, 1925, were :—

Country.	Quantities.	Values.
	No.	£
Alive :—Irish Free State	1,074,187	199,938
Other countries	191,231	18,536
Total alive	1,265,418	£218,474
	cwts.	£
Dead :—France	56,951	337,187
Hungary	41,799	213,736
United States	40,969	303,663
Irish Free State	91,461	564,108
Other countries	156,108	805,040
Total dead	387,288	2,223,734
Less re-exports	14,389	79,919
Total dead	372,899	£2,243,815
Gross Total		£2,462,289

The average values of dead poultry imported was in 1925 114s. 10d. per cwt., as against 118s. 3d. in 1924. The increase in total values was £610,663, or 34 per cent., which is surprising, and indicates that this branch of the poultry industry is being neglected by producers at home. All countries enumerated contributed a larger volume of supplies. The net import values of eggs and poultry in 1925 were :—

	£
Eggs in shell	16,660,510
Eggs not in shell, less re-exports	2,792,721
Poultry, less re-exports	2,462,289
Total	£21,915,520
Increase over 1924	£1,916,616

From the figures given the following estimate of consumption values of eggs and poultry in Great Britain and Northern Ireland is arrived at :—

	£
Estimated production in England and Wales ...	23,779,000
Ditto in Scotland and Northern Ireland	5,000,000
Imported supplies	21,915,520
Total	£50,694,520

Scientific Poultry Breeders' Association.

Full particulars of membership will be sen by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

JUDGES, JUDGING, ETC.

The following is an extract from a letter sent us by a Scotch member :—

> "My White Leghorn pullets this season are too small, some of them scarcely 3 lbs., and their eggs are scarcely saleable. Their sire, since April last, has lifted over 40 first prizes in Utility, and was third at London, Crystal Palace, yet the stock off him are not worth keeping."

Yet we are told these utility shows are educational. Presumably this cockerel won on texture, capacity, fine bone, etc., etc., and the question one wants to ask is, **Was he judged as a potential breeder,** or as a pretty specimen of his breed? We must presume that the novices who visit these shows are under the impression that this cockerel was a typical specimen of a good breeding male. If it was not so, what was he doing in the utility classes, and for what did he lift these 40 first prizes?

We can understand if he was judged for fine bone, and pelvics "like tissue paper," that mated to hens with similar characteristics, beloved by the handler, he would breed stock as described by the writer; much mischief might this winner of 40 firsts do, except in the hands of breeders with sufficient experience to discriminate; and yet scarcely a week passes unless I am asked if I consider a male is good enough to mate, because he has won first at some utility show. I notice that clever writer, "Rufus," in our excellent contemporary, "Poultry," writing on this subject, remarks :—

> "I am not surprised the show is criticised, because more often than not handling can be summed up in one word—humbug!"

Now having learnt the dictionary meaning of the word "humbug," I am not prepared to go as far as that, and also my respect for the judges is such that I believe that they are all acting in good faith, but as yet they have not all learnt the limitations of handling. We all know its value, at least we shall, when we know its limitations.

How sarcastic those fanciers can be. "Northerner," writing in "Feathered World," remarks on the interesting discussions on exhibition and **so called** utility poultry, and says he has been showing this season, "at the principal shows, birds that are typical exhibition, travelling hundreds of miles, and penned five days at a time, home for a few days, then away again. These were laying all the time, and are doing so now, but they would not conform to any handling or capacity stunt. I suppose they would be graded out; yet they do what is required—produce plenty of large-sized eggs."

Now I think "Northerner" is a little bit out of it. **If** his birds laid as well as he suggests—and we don't know what he would call "plenty," for people's ideas vary on that point very considerably —they would have conformed to a handling and capacity stunt. I won't say to the extreme views of some handlers, but there would have been indications of their being good layers. I think most of us could take "Northerner" to some of the classic shows, and show him Wyandottes in the first flight, which would not lay 80 eggs in the year; and we can say pretty definitely that a high percentage of exhibition Wyandottes would not lay 100 eggs in the year.

INCUBATION.

A large number of unhatched eggs have already been received for examination, including two lots sent through the post, which arrived in a mashed condition. In one case we were quite unable to find out who was the sender; in another, we could just decipher the name and address. It is absolute folly to send eggs through the post, and when they arrive in this condition again we shall have no alternative but to throw them in the dust-bin without examination. It is safe to say that 75 per cent. of the eggs sent through the post are received here in a mashed condition, and we have not the time—and perhaps I should say, less inclination—to unpack this filthy mess to discover from whom they come. Again, I may say that in a very high percentage of cases, quite 70 per cent., it was possible to say that the dead-in-shell was due to the eggs themselves, or, it would be more correct to say, to the stock birds. In four cases the males were immature, and there was a high percentage of infertile eggs; in another an old Brown Leghorn male was mated to Sussex hens, the result was again a high percentage of infertile eggs, and only 32 per cent. fertile eggs hatched. One lot was particularly puzzling, the hatching per cent. of fertile eggs was only just over 50, and most of the remainder of the eggs contained well-developed chicks, the only explanation was the exceeding hardness of the shell, and I think the sender would have been well advised to have allowed the eggs to remain in the incubator another twenty-four hours, and supplied more moisture, as I believe he would have had a much better hatch had he not been so hasty. Sufficient attention has not been given to the texture of the shell as an explanation of a bad hatch. Not only, as in the case mentioned above, but thin-shelled eggs, where there is too much evaporation; the hen is better able to regulate the conditions to the individual egg than is possible in an incubator, where there may be two or three hundred. Excess of moisture in a badly-ventilated incubator was the cause of one big loss; in another case bad results were obtained in a building with a tiled roof. There was great variation in temperature, and a stove was put in to keep it as nearly as possible to 50 degrees. It would have been far wiser to have put a few bundles of straw under the roof.

THE LIGHT SUSSEX.

"You cannot expect to get type in utility Light Sussex." Capt. Munro-Spencer quotes this in the plea he makes for the Light Sussex in last week's issue. The same remark has often been made to me, not only as regards the Sussex, but as to other breeds, and it has been made by breeders and judges who believe what they say. Now, of course, it is not true. The Sussex is a utility bird first and foremost, and it is the crassest folly to designate only those which are bred for egg production as "utility." There is no finer all-round breed in the world; but some of our so-called utility strains make one shudder, and one wonders why breeders have so lost their sense of proportion. But let us admit, for the sake of argument, that it is correct that you cannot expect to get type in the utility Sussex, whatever the term may mean as applied to the breed. Then what becomes of your utility standard? We must argue that selection for a specific factor is against type, if we accept this statement as correct; then selection for a specific factor may as easily be against standard, any standard which you may fix. It will be a great deal easier to breed for prolificacy and type than it will be to breed to any arbitrary utility standard which may be set up.

WHAT'S IN A NAME?

Members are particularly interested in the suggestion put forward by Mr. E. T. Bacon in last week's issue, that the S.P.B.A. should change its name.

A large number of replies have been received, and I must say that the vast majority are totally against the change.

Commander McCulloch writes :—

> "Personally, I suggest it would be a great pity, if not a temporary set-back to a Society, which, in this comparatively brief period has made such steady and sure progress for poultry craft in general, and its rapidly increasing membership in particular."

Mr. J. Tindall thinks :—

> "That, in view of the satisfactory list of new members we see each week, it seems hardly desirable to change the title of the Association."

Miss Harrison Bell writes :—

> "I should be very much against the name of the S.P.B.A. being changed. I consider it, as it stands, of the most importance, being quite distinct from other names of poultry societies. Also, of what use are we to-day as poultry-keepers if not scientific?."

One member has written suggesting that the change might be a good one, as he himself is not "scientific," and he thinks there are others like him.

One can hardly look upon this is a good reason for changing the name. The real and only reason was given by Mr. Bacon in his letter, and the question is, Does the word "Scientific" deter poultry-keepers who would like to become members? In view of the fact that we at present are enrolling new members at the rate of between 70 and 80 per week, this does not seem to be the case.

I am sorry I cannot spare space for more expressions of opinion this week.

"DAILY MAIL" EGG-LAYING TEST, 1925-26.

REPORT FOR SECOND MONTH—16th Nov. to 13th Dec., 1925.

The weather throughout the second period of four weeks was unfavourable to egg production, and severe frosts, with heavy falls of snow which lay on the ground for many days, were experienced.

Production by the second season hens, both pure bred and first crosses, was most seriously affected, though the latter did slightly better than the pure breds—5.93 eggs per bird, as compared with 4.64 by the pure bred hens. The first cross pullets on the other hand did well, with an average of 13.26 eggs per bird.

The size of the eggs laid by the second season hens was extremely good—the percentage below the 2oz. standard being only 3.1 per cent., and in shape, texture of shell and general character they were all that could be desired.

With the exception of one pen of hens the health of all the birds was very good, and with an improvement in the weather conditions a rapid rise in the production of the hens may be expected. The pure bred hens are now mated up with cockerels of a different breed or variety, and arrangements are being made for hatching and rearing a limited number of chicks from each mating in accordance with the scheme of the Test.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs and Points respectively:—

Section 1.—Leghorns—Any Variety (7 Hens).—Balsham Manor Farm, Cambridge, 156, 145; R. A. and A. M. Johnson, Chalford, Glos., 141, 135; Burrows Lea Poultry Farm, Shere, Surrey, 108, 108; Viscount Elvedon, C.B., C.M.G., M.P., Old Woking, Surrey, 106, 105.

Section 2.—Wyandottes—Any Variety (7 Hens).—A. K. Speirs Alexander, Norwich, 149, 148; Frank Snowden, Keighley, 127, 127; H. D. Barley, Birmingham, 116, 115; A. Hughes, Malpas, Cheshire, 101, 100.

Section 3.—Rhode Island Reds or Light Sussex (7 Hens).—Major G. T. Williams, Perranwell, Cornwall, 129, 129; Edward Beer, Hadleigh, Suffolk, 101, 98; B. A. Wolryche-Whitmore, Ufford Hall, Stamford, 93, 90; Tilley and Webb, Basildon, Essex, 80, 76.

Section 4.—Any Other Breed (7 Hens).—Mrs. Ward-Jackson, Kingsland, Herefordshire, 83, 71; Oscar C. Brown, Scunthorpe, Lincs., 77, 66; Wm. Hamnett, Blackpool, 60, 60; Capt. H. C. Mackenzie, Herne Bay, 49, 49.

Section 5.—First Cross Hens competed in "Daily Mail" Test, 1924-25 (7 Birds).—P. E. White, Market Drayton, Salop, 180, 171; H. Sutton and Sons, Little Hoole, Preston, 118, 113; Sydney Smith, Clifton, Nottingham, 110, 110; Warwick Rogers, Market Drayton, Salop, 80, 77.

Section 6.—Any First Cross (7 Pullets).—H.R.H. The Prince of Wales, Duchy of Cornwall Farm, 242, 239; A. Mansell, Kingston Stert, Thame, 225, 171; Tom Barron, Catforth, Preston, 216, 164; Mrs. Ida M. Smith, Peterboro', 196, 153; M. A. Brawn, J.A., Walsall, 146, 146.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answers all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

ALL questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

"Congleton."—We have received samples of foods from "Congleton." with no letter enclosed, so that we have no idea from whom they came. Fish meal at 19s. 6d. per cwt. This contains an excess of oil, and is very smelly. Middlings at 9s. 6d. are just fair. There is rather an excess of bran. Ground oats at 13s. per cwt. These, of course, are not "Sussex" ground. It would hardly be suitable for young chicken, but would do for adult birds, in the mash. The maize meal at 11s. cwt. is a good sample. The bran is not good. The wheat is fair, and the split maize a fairly good sample.

S. R. K. (Blackburn) sends a sample of meat and bone meal at 14s. 6d., which is good value for the money. Sample No. 1 of bran is not so good as No. 2; No. 1 is not good enough. Soya bean meal at 13s. 6d. per cwt.; this is soya bean cake meal, and is not what is suggested in "Eggs." Ground oats at 13s. 9d., although good value for the money, are not first class. Samples of fine offal are both good, but No. 1 is the better value. Sample 2 of alfalfa meal is a first-class one, better than No. 1, which is also good. No. 3 sample of bran is not so good as No. 2. The other samples of fine offal are not so good as No. 1. The dried yeast is a very good sample.

"Enquirer" (London) sends sample of biscuit meal, which is a very nice clean one. Two samples of fish meal, "A" and "B," of which I prefer "B"; "A" contains rather an excess of oil. The middlings sent are very inferior; they are nothing but fine bran, and not good enough to feed. The sample of fine middlings, which is almost a low-grade flour, is to be preferred. The sample of ground oats is a fair average one. His mash is as follows:—1 cwt. coarse middlings, 1½ ground oats, ¼ bran, ½ maize germ meal, and 44 lbs. fish meal. The birds get equal parts (by weight) of wheat, kibbled maize and clipped oats. Can I suggest any alteration to increase the egg supply, which is bad. He cannot vary the constitutents. He also wishes to know why grit is not necessary if oyster shell is supplied. I think his mash would be much improved if it were made as follows:—2 cwt. middlings, ¼ bran, 3 each maize germ meal and ground oats, and ½ cwt. fish meal. This would be cheaper, and give better results. Personally I do not believe grit to be necessary to grind the food if oyster shell is supplied. We have had a controversy on this question, and I cannot enter into all the details here.

E. E. (Norland) writes to ask if I can explain the cause of his bad hatches. He has had three this last three weeks from 100-size hot-air machine, and 50 per cent. of the chicks dead-in-shell. On opening the eggs there was a fair air space; the chicks fully developed and fairly moist. He ran the incubator in the house and supplied plenty of moisture; he filled up the water trays from the first week; he took out one felt on the 7th day and the other on the 14th. He cannot think it is the stock, as the eggs are from six different pens and are strongly fertilised; clears have been ten, eight and ten, and chicks were fully developed. He has had good hatches in the past with the same management—last year 82.5 chicks per hatch of all eggs put in incubator. He asks, Do I think he is supplying too much moisture for this time of the year? I am afraid sufficient details are lacking for me to offer a definite opinion. I do not think he is giving too much moisture. In fact it would hardly be possible, under the circumstances he describes, and he would have been much wiser if he left both felts in until the 19th day and then only removed one. If there had been too much moisture there could not have been a fair air space. We must assume that the thermometer is registering correctly. I am inclined to agree with him that the stock birds birds are not at fault, but still we cannot overlook the possibility, and I wonder whether he has noted the results from the different pens?

C. H. R. C. (Wanstead) sends me a sample of kibbled maize which his birds will not eat. These are maize grits, and a very good sample, and I cannot understand the reason why the birds will not eat it; there is nothing wrong with it whatever. He is mixing it with two ounces of wheat and half groats. It is perhaps merely the preference of the birds for the wheat and groats. I notice, too, that he states that the birds are dropping out of production; they have been laying well since October—four or five eggs per week each. It is not unusual for birds which have been laying heavily for this period to drop out in January. They will start again after a short rest. The sample of oyster shell enclosed is a very good one. The fact that the shells of the eggs have been getting a bit thin is not surprising with birds which have been laying four to five per week. I would, however, suggest the addition of a salt mixture to the mash, made up to the formula so often given in these columns—i.e., 60 parts steamed bone flour, 20 parts common salt, and 20 powdered oyster shell or limestone dust, mixing five ounces of this to every 10 lbs. of the mash. The sample of meal enclosed is a very good one. My correspondent further suggests that in the controversy on the value of Light versus Heavy breeds he thinks one factor is overlooked namely, the flavour of the flesh of the White Leghorn. To his mind or taste the flesh of these birds is far better than that of the heavies. He is referring to utility breeds, and not to those bred especially for table. I think there are many people who would not agree with him.

M. S. P. B. A. (Wilton) has not signed his name, or he would have received a reply by post. He sends a sample of meal which is said to be made up to my formula. Since feeding this to his hens they have done very badly, and eggs have been very scarce. I am not surprised that the eggs are scarce, the ingredients are very inferior, and the mash lacks body. It is not made up to my formula, and at 13s. cwt. it is dear. I cannot be responsible for any advertiser who advertises mashes made up to my formulae.

S. W. S. H. (Carnarvon) sends a sample of what is described as meat meal, which he bought locally as such at 2s. 8d. per 12 lbs. This is not meat meal, but merely the refuse of fish, consisting chiefly of the skins. I should think it most unsuitable for poultry feeding, and very dear at the price.

E. B. (Beds) has 30 R.I. Reds in a house, 10 ft. x 10 ft. His mash is made up of: 28 lbs. bran, 42 middlings, 14 ground oats, 7 dried yeast, 7 fish meal, and 14 maize meal. My correspondent adds:—"You say mash in the morning, scratch feed at mid-day, grain at night. I thought the grain was given in the morning to make them scratch for some time until the mid-day mash, and then fill up with grain at night, occasionally changing it to scratch feed at mid-day and mash at night." He cannot see why I advocate mash in the morning, and would be very glad to know the reason. I did not know that I had advocated the mash in the morning. I have always advised a small scratch feed in the morning, when the birds come from the perch. If wet mash is given I prefer to give it in the morning, because the birds want a good meal after so many hours on the perch, and I do not like wet mash feeding at night, as I consider a full feed of grain much more suitable. My correspondent wants a good chick rearing grain feed for the first few weeks and a mash also. The chicken rearing grain feed is as follows:—42 lbs. cut wheat, 35 fine maize grits, 28 split groats, 7 canary seed, and the chick mash:—21 lbs. bran, 10 alfalfa meal, 35 middlings, 24 Sussex ground oats, 14 maize meal, 8 fish meal.

H. H. (Kington) writes that he has an outdoor brooder containing (1) compartment containing hover, (2) compartment adjoining for day nursery, (3) pen or compartment with wire runs so that birds can get out on the grass. This brooder is rather large for his requirements and for the size of his incubator, and he wishes to know if there would be any harm in putting into it two separate hatches, one 25 days older than the other. He proposes to keep his young birds until three weeks old in a room, and not put them into the brooder at first, so that if the plan is feasible his oldest lot in the brooder would be about 50 days old, and his second lot about 25 days old. This course is inadvisable. The younger chicks would be bound to suffer, and I should certainly recommend my correspondent to give up such an idea. If his oldest lot in the brooder would be about 50 days old when they go in, why use a brooder at all? They can almost do without one. My correspondent had better give up the idea, for it is sure to result in failure.

A. F. S. (Dorking) writes that she has been a reader of "Eggs" for some little time, and would be grateful if we would kindly give her some advice with regard to her poultry. She is an amateur and beginner. Last year her hens laid very well, and she made what everyone told her was a good profit for the first year. This year she has done very badly, and cannot see what is the matter. She has a deficit of £7, owing chiefly to lack of eggs since October. She has 37 hens and one cock, second year; 26 chicks hatched early last May, about the 5th. The chicks did very well—46 hatched out of 52 eggs. They took very fit, but only one has begun to lay. Thirty-six hens are contributing about six eggs a week. They are fed on mixed corn, of which they are given 1½ozs. each a day, and a mash of middlings and fish meal, with a spice occasionally. They are getting 6lbs. of middlings and about 2ozs. of fish meal for the 63 hens and chickens. They have also a dry hopper of middlings and fish meal, also shell, green stuff and fresh water. The breed is White Wyandotte and Leghorn cross with a few R.I. Reds. Last year with the same food and the same conditions the hens laid well from November onwards. My correspondent is a beginner, and I think fails to understand that hens in their second year are not so prolific as pullets, and that from her 36 hens it is probable that she will get very few eggs during the winter months. Now, coming to the cross-bred pullets. These were hatched too late to produce eggs in the autumn and early winter, therefore we see that it is a case of hatching on the one hand; and, secondly, these chicks and hens have not been sufficiently well fed to produce eggs; 1oz. of grain per day and the middlings and fish meal are not sufficient to produce eggs. I suggest that she increases the corn allowance to a good 2ozs as the minimum quantity per bird, as the last feed at night, and, further, I would advise her to feed kibbled maize and wheat in equal parts rather than a mixed one. This should be fed in the scratch litter; and to give, in addition, the following mash:—1lb. bran, 4lbs. middlings, 1lb. maize meal, 1lb. ground oats, and lb. fish meal. This should lead to an improvement. The birds should have at least 2ozs. of the mash per head, weighed dry before scalding, as she has been in the habit of feeding a wet mash. This spring I would advise her to hatch her cross-bred chickens about the 7th April. She would get far better results in winter eggs.

Miss H. (Ashstead) sends sample of mash made up to the following formula:—Four parts middlings, one bran, one maize meal, one alfalfa meal, one ground oats, and half fish meal. The price is 16s. per cwt. Although her birds are laying quite well, they do not seem to care for the mash, and eat very little of it. She only includes the half part fish meal, owing to a great number of shell-less and double-yolked eggs during the autumn. The ingredients used in the mash are of fair average quality, but it is very badly mixed. The alfalfa meal especially was in big lumps, and this may be the cause of the birds not caring to eat much. A badly-mixed mash, although the proportions of it may be correct, it is not relished by the birds. In all other respects it is satisfactory, and as they are laying well on the comparatively small percentage of fish meal, it would not be wise to increase it, especially in view of the fact that the birds will soon be laying more heavily.

"Dusty" (Bentley) wants a mash in which he can give milk powder and the mineral salt for the rearing of chicks intensively; also what grain to use with same. The following would be the best mash:—21lbs. bran, 10lbs. alfalfa meal, 35lbs. middlings, 24lbs. Sussex ground oats, 14lbs. maize meal, 10lbs. milk powder. As the milk powder is used it is quite unnecessary to use the mineral salts suggested, and the grain feed should be:—42lbs. cut wheat, 35lbs. fine maize grits, 28lbs. split groats, and 7lbs canary seed.

POST-MORTEMS.

A. E. H.—The post-mortem examination of the chicks showed that pneumonia was the cause in each case. The condition of the lungs and general appearance of the bodies would indicate that fume poisoning was the cause of the pneumonia, and the symptoms described are such as would be consistent with what amount to intoxication by the products of combustion or even by the noxious emanations of the birds themselves, or a combination of both. There are no other lesions except those in the lungs; no parasites, and no coccidia, and no trace of the aspergillus fungus. The trouble is not infectious, although, of course, many cases may occur when a number of birds are exposed to similar conditions.

DORCHESTER COUNTY TRIALS.

Poultry Instructor's Report for Third Month—December 10th, 1925, to January 6th, 1926.

All birds remain still in good health. This month has experienced all sorts of weather—two fine sunny days, three frosty eleven mild, without sun, the remaining twelve rain with occasional gales. More rain—more eggs—full ventilation all through month. Twelve birds were moulting during third period. Three have been broody—Nos. 51, 209, 214.

All pens have now commenced to lay, as anticipated last month. Pen No. 45 only reserve bird laying. Pen No. 37 last to commence. Three birds now laying, Nos. 217, 218 and 220.

The hospital has had no patients owing to the quick observation and prompt medicine.

Signed) A. TURNER.

LEADING PENS IN EACH SECTION TO END OF THIRD PERIOD.

Section 1.—N. V. Fowler, Bridport (W.W.), 2579 points; Capt. Turton, Ensbury (R.I.R.), 2299; Capt. Turton, Ensbury (W.W.), 2145; Mrs Clark, Steepleton (W.W.), 2140

Section 2.—Major Leschallas, Charminster (W.L.), 2371 points; Capt. Turton, Ensbury (W.L.), 2292; Mrs. Trehane, Hampreston (W.L.), 2280; R. J. Aitken, Moreton (W.L.), 1774.

Section 3.—H. J. Northover, Buckland Ripers (L.S.), 2374 points; H. E. Wilds, Marnhull (L.S.), 2248; H. Barnes, Blandford (W.W.), 2208; O. J. Collis, Buckland Newton (W.W.), 2170.

Section 4.—Miss Oddy, Milborne (W.L.), 2032 points; V. and H. Lawes, Cerne Abbas (Bl. L.), 1455; W. M. Millard, Shaftesbury (W.L.), 1407; P. C. Stanton, Hampreston (W.L.), 1016.

Correspondence.

"VARIANCE IN TYPE."

To the Editor of "Eggs."

Dear Sir,—In Munro-Spencer's able article, "A Plea for the Light Sussex," we are once again confronted with the terms "Exhibition" and "Utility" as applied to poultry, and also to the question of breed type. As regards the former "problem," in view of the consistent juggling with the terms, I concluded long ago that they are merely a business heading of interest to those concerned in either.

I venture to state that commercial poultry farmers to-day should, and must, place usefulness before beauty, although, by a strange coincidence, their favourite useful fowl is, generally speaking, a most striking example of the breed type.

In reply to the remarks made on the poultry "fancier," I would suggest that if the majority of present-day poultry farmers were true "fanciers" at heart, the breeds of to-day would present an appearance more true to breed type (combining, also, useful qualities) than what results from all the writings on the subject. I am certain that the true "fancier" is, even to-day, the rock bottom of the industry.

Let us for the moment disregard "Exhibition" and "Utility" and deal with just a "Light Sussex" fowl. There is, of course, a standard laid down for the breed, but from what breed (or breeds) is the Sussex fowl derived? I would not for a moment dispute the fact that to secure type in any animal, selective breeding is called for. In practice, however, it is found that even when the utmost care is taken in the selection of adult breeding stock, there will always be a number of the progeny that lack the breed type. One of the causes, therefore, points to hereditary inheritance, in this manner: If a Dutch doe rabbit is mated to, say, a Blue Beveren buck, the progeny will be Dutch marked but lack the "cobbiness" associated with the breed. If the doe is later mated to a true Dutch buck, although the majority of the offspring would also lack Dutch type, possibly one or two would be grand specimens of the breed. In subsequent matings the untrue to type would gradually disappear, but **there is always the possibility of their turning up.** This argument, I consider, may be given as just one of the causes of the variance in type of practically all forms of live stock. However, careful feeding and attention will do much to combat most of the present-day "evils." I do not believe that "strain" or "pedigree" alone will overcome them.

"All things being equal" is a term used by a leading breeder of ducks. How true the statement is, in poultry, as with most other matters, "SO MUCH DEPENDS."

HARRY BOORMAN.

Section	BREED	No. of Pens	No. of Competing Birds	EGGS LAID				Average per Bird*	VALUE			Average money value per Bird* (to nearest penny.)			WEIGHT		Average Weight per Egg*	
				Grade 1	Grade 2	Grade 3	Total											
									£	s.	d.	£	s.	d.	ozs.	drs.	ozs.	drs.
	Championship Trials																	
I.	Light Breeds ...	13	130	22112	2155	57	24324	187.10	178	9	0.9	1	7	5	51210	10	2	1.67
II.	Heavy " ...	15	150	25330	2756	119	28205	188.03	213	10	8.7	1	8	6	59969	11	2	2.01
	Breed Sections (Small Flock Trials)																	
I.	White Leghorns	57	342	56514	7312	282	64108	187.45	465	6	1.1	1	4	4	135258	4	2	1.75
II.	W. Wyandottes	48	288	46055	6583	268	52906	183.70	393	7	5.9	1	4	5	110982	2	2	0.97
III.	Rhode Island Red	33	198	32025	2745	55	34825	175.88	258	2	1.7	1	6	1	74355	13	2	2.16
IV.	Sussex	27	162	24690	2421	53	27164	167.67	202	2	0.8	1	4	11	57624	5	2	1.94
V.	Black Leghorns ...	15	90	15297	855	25	16177	179.74	118	5	10.8	1	6	3	34676	2	2	2.29
VI. (*a*)	Barnevelder ...	6	36	5810	77	2	5889	163.58	42	16	5.9	1	3	9	13287	11	2	4.10
(*b*)	Rocks	8	48	8077	465	8	8550	178.12	64	19	7.4	1	7	1	18390	2	2	2.41

MEAT PLUS EGGS.

To the Editor of "Eggs."

Dear Sir,—The above figures of last year's Harper-Adams' Laying Test with my additions (*) may be useful to readers interested in the above controversy.

While keeping in mind environment as affecting Lights or Heavies, the question of thoroughness in selecting the breeders, and making due allowance for the Harper-Adams' birds being specially selected for the Test, my experience, as a successful competitor in laying tests, and as a breeder of utility R.I.R., W. Wyandottes and W. Leghorns, who keeps careful records and is fond of statistics, is that these figures are very representative of the relative performances of the breeds kept under normal commercial conditions. The columns "Average per bird" and "Average money value per bird" should interest some of your recent correspondents.

Yours truly,
R. McKENZIE.

LIGHT BREEDS v. HEAVY.

To the Editor of "Eggs."

Dear Sir,—I believe the original argument of the above—or remarks—shall I say, "Is the heavy breed better suited for commercial egg farming than the light breed?"

Therefore, I take it, if the heavy breed were substituted for the light, it would enjoy the same advantages, i.e., be sold alive, otherwise we are going into another street. The 2s. profit on R.I. Red cockerels, as Mr. Bygrave gives, would not be obtained. Crate-fattening and plucking would be necessary to reach that profit on March-hatched Rhodes. One must not lose sight of the fact that R.I. Reds capable of putting up as good a record —or nearly so—as the Leghorn are not the sort of birds to breed ideal table birds from in respect of size and putting on meat. The progeny from highly-fecund stock do not respond anything like "non-pedigree" stock in the manner of putting on flesh and so—weight.

I do not sell my hens alive, but two years ago, in the autumn, I sent one dozen Rhode hens to Leadenhall, and the price obtained, after deducting carriage, was 2/3 each, and they were sent to the firm who has taken my table chicken every year. Also, I have seldom seen more than 2/6 realised in local markets for Rhode hens.

Again, Mr. Bygrave has allowed nothing for the expense of labour in the rearing of these heavy breed cockerels; three months longer than the Leghorn cockerel, and that is an item to be reckoned with.

As an instance, I hatch about 1,000 chicks yearly, and, assuming I rear 800, and these being Leghorns, after a month I have the pullets only to care for—whereas, if heavy breeds, I have another three months or double the work for that period. Also, almost double the number of heavy breed hens are required to Leghorns, and about 33 per cent. more cockerels to mate with them.

Leghorns, too, are easier to rear than heavy breeds. When a month old one is "out of the wood," but such is not the case with heavies, as it is their feathering stage, and does not go so easily with them.

To make £8 15s. profit in favour of the Rhode, Mr. Bygrave has simply taken 1s. off cost of rearing the pullet, and "plonked" it on the cockerel.

Taking into consideration cost of cockerel for fertilising the egg, amongst a few other items and some losses, I should say I was doing well to rear a Rhode for 6s. to laying age, say seven months. The profit on heavy breed cockerels should be nett, of course.

Yours truly,
V. J. YOUENS.

THE NATIONAL UTILITY POULTRY SOCIETY.

NATIONAL EGG-LAYING TEST, 1925-26.

Report for the Second Month—29th Nov. to 26th Dec., 1925.

Very severe weather was experienced throughout the greater part of the month, but egg production showed a considerable improvement over that of the first period. The total egg yield rose from 15.158 to 18,249—an average of 11.93 eggs per bird, as compared with the previous month's average of 9.75.

There was a steady rise in the daily collections, that of the first month being 526 eggs, and on the last day 703 were picked up.

The improvement in production was shared by all breeds, but was most marked in Buff Rocks and White Wyandottes, of the largely represented breeds, and the two pens of Brown Leghorns put up an average for the month of 14 eggs per bird. Heavy moulting, doubtless due to the sudden severe weather, has been a characteristic of the season, and by far the larger proportion of the birds laying during the first month have been affected, and the increase in production is entirely due to the larger number of fresh birds that have come into lay in their place. This moulting has been the cause of several pens losing their high positions

The average size of eggs laid also improved, the percentage of first grade, rising to 81 55 as against 78.61 last month.

The health of the birds on a whole has been good, though there are still a few cases in hospital, but none are serious.

EGG PRODUCTION OF LEADING PENS.

Figures are Total Points to Date.

Section 1. Championship (Ten Pullets).—A. K. Speirs Alexander, Roughton, Norwich, 397; R A. and A. M. Johnson, Chalford, Glos., 321; The Misses Ransford, Finchampstead, Berks, 313; G. B. Metcalfe, Lechlade, Glos., 306, J. E. Hughes, Standon, Herts., 282; Leslie Williams, Liss, Hants., 276.

Section 2. White Leghorns (Five Pullets).—Worcestershire Poultry Farm, Bromsgrove, 189; Sydney Smith, Clifton, Notts, 186; J. B. Gow, Stoke D'Abernon, Cobham, 178; C. Wildner Christensen, Denmark, 171; W. Sharp, Bell-Busk, via Leeds, 171; Clophill Poultry Farm, Ltd., Ampthill. Beds., 169.

Section 3. Black Leghorns (Five Pullets).—Miss Mallam and Mrs. Gifford, Sparsholt, Wantage, Berks., 160; Richard Rodwell, Nelson, Lancs., 156; W. P. White, Colne, Lancs., 156; I. Margerison, Burnley, 139; Frank Snowden, Cowling, Yorks., 135; Robert A. Fawssett, New Radnor, Wales, 117.

Section 3a. White Bresse (Five Pullets).—H. R. Hunter, Twyford, Winchester, 142; John Thornhill, Great Longstone, 128; E. P. Townley, Woodcote, Oxon, 126; Sir Charles McGrigor, Bart., Bake, St. Germans, Cornwall, 120; K. A. Crawford, Redwing Poultry Farm, Dilham, Norwich, 93; Lieut.-Col. R. S. Weston, Trowbridge, Wilts, 86.

Section 4. Any Other Light Breed (Five Pullets).—J. R. Joy and Co., Rotherfield, Tunbridge Wells, Sussex, 144; Stanley Street-Porter, Coveney Manor, Ely, Cambs., 134; J. H. Thompson, Four Marks, Alton, Hants., 126; Hon. Marjorie Cross, Ash House, Broughton-in-Furness, 115; Miss E. Cavanagh, Terenure, Dublin, Ireland 114; Lady Latymer, Fordingbridge, Hants., 103.

Section 5. White Wyandottes (Five Pullets).—Arthur Gawthropp, Northampton, 214; Alvaston Poultry Farm, Derby, 200; Mrs. M. A. Seed, Preston, 198; Richard Rodwell, Nelson, Lancs., 197; A. W. Woodford, Clitheroe, 197; G. H. Rayner, Grantham, Lincs., 193; Capt. J. Thompson, Shrewsbury, 193.

Section 6. Rhode Island Reds (Five Pullets).—Gettern Model Poultry Farm, Southport, 176; J. B. V. and W. Cummings, Penicuik, Scotland, 175; W. H. Poe, Great Totham, Maldon, Essex, 149; A. H. Donkin, Shorncliffe, 145; Arthur Gawthropp, Northampton, 143; H. R. Hunter, Winchester, 143.

Section 7. Sussex (Five Pullets).—Mrs. E. M. Knight, Odstock, Salisbury, 161; Edgar Clough, Lyme Regis, 145; E. Rossall-Sandford, Shrewsbury, 141; Mrs. John Goodden, Yeovil, 140; Edward Watkins, Cross-in-Hand, Sussex, 122; F. R. Welch, Bewdley, Worcs., 115.

Section 8. Any Other Heavy Breed (Five Pullets).—Miss C. Beck, Ware, 144; Mrs. Ward-Jackson, Kingsland, Herefordshire, 134; Miss Harrison Bell, Welwyn, Herts., 134; Charles Prior, Ropley, Hants., 129; Miss P. Mills, Bishop's Castle, Salop, 125; R. A. Wright, King's Langley, Herts., 119.

Section 9. For Small Breeders' (Two Pullets).—J. M. Johnston, Southampton, Hants, 83; F. Deakin, Chester, 79; E. Fownes, Sunrise, Hanworth, Middlesex, 72; G E. Pearson, Epperstone, Notts., 72; Lewis Evans, Langport, Somerset, 68; Samuel Hufton, Derby, 67; John T Kidger, Markfield, Leicester, 67.

Scientific Poultry Breeders' Association.

KEIGHLEY AND DISTRICT BRANCH.

The second of a series of Open Egg Shows will be held in the Temperance Hall, Keighley, on Wednesday, February 3rd, 1926. Entries are invited for seven Classes:—

Hatching Eggs.—Class 1, Six White Hen Eggs; Class 2, Six Tinted Hen Eggs; Class 3, Six Brown Hen Eggs.

Commercial Eggs.—Class 4, Six White Hen Eggs; Class 5, Six Tinted Hen Eggs; Class 6, Six Brown Hen Eggs.
Class 7, Six Duck Eggs (Hatching or Commercial).

Judge: Miss Hillaby, Pontefract.

A silver Challenge Trophy is offered by the Society for most points gained in the whole series. Points obtained in Egg Classes at the Annual Open Show in November, 1926, will be allowed to score. Mrs. Wilson, Denholme, will give a silver spoon for most points gained in the Duck Egg Classes.

No entry fee. Awards of merit will be made, and particulars communicated to local press. After awards have been made, eggs to be sold and proceeds to go to the Society's Show funds.

Your hearty co-operation is invited. Packages of eggs should be addressed to the Hon. Sec., Keighley and District Branch of S.P.B.A., Temperance Hall, Keighley, and should arrive not later than 6.30 p.m. Judging will commence at 6.45 p.m.

After the sale of eggs, Miss Hillaby will give an address, entitled "Successful Poultry-Keeping."

Mrs. A. WILSON, Hon. Sec.

WADHURST BRANCH LAYING TEST.

October 15th—December 31st, 1925.

Rhode Island Reds continue to hold first and second places in numbers and points. One particular bird has laid first grade eggs all through. Leghorns are rather handicapped by the rule that their eggs shall weigh 2⅛ oz. to be first grade. Second grade eggs will now drop two points.

1, Messrs. Daldy and Licky (R.I.R.), 55, 550.
2, J. Everard (R.I.R.), 58, 523.
3, R. S. Cooper (W.L.), 35, 320.

Figures are eggs and points respectively.

WADHURST BRANCH.

On Saturday, January 16th, Dr. W. Rushton, of St. Thomas' Hospital, London, gave us an interesting lecture on "Skeletons." He explained that some animals, such as fish, poultry and rabbits, have, in addition to their ordinary skeletons, the bones, a sort of "exterior" skeleton, the scales, feathers and fur. The difference in structure and growth was illustrated by blackboard drawings, and we were shown how these parts were affected by age and nutriment of the skin.

In conclusion, a hearty vote of thanks was accorded Dr. Rushton for his lecture. The next meeting will be made on Saturday, February 20th, when Mr. Tom Newman has kindly promised to speak to us on "Poultry Topics."

Mr. E. Bostock Smith has also kindly promised to come on the same day and give us an address on Rabbits. The meeting will be held at "The Hut," Best Beech Hill, Wadhurst, and will commence at 2.30. All interested in Poultry and Rabbits are invited to attend.

Mr. G. VINER FORREST.

Mr. Forrest asks us to announce to our readers that, owing to a serious illness, he has not been able to reply to the letters received re his article on Caponizing in the 1926 Register.

We are sure all our members will wish Mr. Forrest a speedy and complete recovery.

S.P.B.A. FOOD SCHEME.

Old Lodge, Nutley, Sussex.
9th December, 1926.

"Dear Sir,—I am pleased to tell you that since we started using the mash recommended and supplied by you, our egg production has gone up fifty per cent.

Yours truly,
(Signed) R. F. LANE."

Theberton Grange, Leiston, Suffolk.

"Dear Sir,—Whichever sort this mash is which I have had, I must say that its effect is wonderful, and the birds love it. I have 300 chicks on it, which are now a fortnight old, and they look more like a month old and are very full of beans.

Yours faithfully,
(Signed) H. St. G. MAXWELL."

ST. DUNSTAN'S WINTER EGG-LAYING TEST.

Recognised by the National Poultry Council.

Second Period—29th November to 26th December, 1925.

Figures are Total Points to Date.

Section 1. Rhode Island Reds. Four birds to pen.—Mr. L. A. Pisset, 116; C. T. Condon, 108; J. H. Lea, 104; A. E. Coman, 93; J. H. Tindall, 90; H. Nelson, 82.

Section 2. Any Other Heavy Breed. Four birds to pen.—D. Maclean 97; R. Ashwell, 78; P. Holmes, 72; F. E. C. Bulley, 68; T. A. Carter, 55; G. C. Jackson, 34.

Section 3. White Leghorns. Four birds to pen.—J. H. Tindall, 104; Mr. N. A. Ramsden, 92; Mr C. R. Bulman, 91, R. K. Lowrie, 76; D. Roach, 75; H. A. Knopp. 74.

Section 4. Single Bird. Heavy Breed.—A. Urry, 36; T. A. Carter, 36; Mr. L. A. Bisset, 33; W. Burgin, 33; A. Chaffin, 30; A. E. Coman, 29.

Section 5. Light Breed. Single Bird.—P. Holmes, 23; J. Nolan, 21; J. Woodhouse, 21; A. Chaffin, 16; B. Hamilton, 12; Mr. A. H. Capper, 10; W. A. Foulkes, 10.

MEMBERSHIP OF THE S.P.B A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.

The Marketing Conference.

The Marketing Conference, called by the National Poultry Council and the National Farmers' Union, and held at the Holborn Restaurant on Wednesday, 27th January, might on the whole be regarded as a success.

It is perfectly true that no great proposals were made nor any resolutions adopted, save one which referred the whole question back to the National Farmers' Union and the National Poultry Council, Some of the delegates expressed disappointment that more had not been done. They had looked for some substantial results, but no greater undertaking was ever started and finished in one day, and the real work of organisation will have to be done by the committees which will doubtless, later on, be appointed for the purpose.

Mr. Langford, President of the National Farmers' Union, welcomed the Minister of Agriculture and referred in the most complimentary terms to the Marketing Report issued by the Ministry, paid a glowing tribute to the work of the National Poultry Council and its allied bodies, and referred to the wonderful work which Mr. Edward Brown, Secretary of the National Poultry Council, had done for the industry.

He then proposed that Mr. Clem Watson should take the chair. Mr. Watson immediately called upon Col. Guiness, the Minister of Agriculture, who first congratulated the National Poultry Council and the National Farmers' Union on their action in calling this Conference, which was essential, for if the poultry industry in this country was to hold its own there must be better organisation. He referred to the fact that 50 per cent. of the eggs imported into this country were controlled by quality before export, and as the years passed by the competition as to quality with imported eggs will become keener. Therefore it was up to the home producer to improve the quality of the English egg, and, if possible, to increase consumption.

In the Ministry's report it was stated that three eggs were consumed per head of the population in Canada to one in England. Patriotism will not sell bad eggs, and when all eggs are marked each nation must stand on its own merits.

The Chairman, Mr. Clem Watson, referred in his opening remarks to the value of British stock. The war had given a great impetus to commercial poultry-keeping, and this subject has now to be dealt with in a new way. He referred in the most complimentary terms to the Ministry's report.

A vote of thanks to the Minister of Agriculture for his attendance was proposed by Mr. Langford, and seconded by Mr. Stanley Street-Porter, and carried amidst applause.

Mr. A. W. Street, who was responsible for the Ministry's Report, in the first place, paid a tribute to the work of his colleagues—Mr. Flatt and Mr. Francis. He had to assume that the Agenda was drawn up before the Report was published, and he could only say if they were not in agreement with the Report that "this is our idea, and if you do not like it, what is yours?" Imports had increased over 10 per cent. in 1925, and the imports of dead poultry over 30 per cent. We have not yet felt the full effect of the Marketing Regulations of Northern Ireland, and the improved quality of eggs which were being sent here.

Mr. Street illustrated his argument by showing how the margin of prices between the British and Northern Irish egg had become less since the Marketing Regulations had been in force. In June, 1924, the difference was 1/- per 120; in June, 1925, the difference was only 1d. In August it was 9d., against 1/6 in the previous year. In October as against 3/6 it was 1/2; in November as against 5/- it was 1/4, and in December it was 1/3 as against 4/6. It may certainly come that the Irish egg will fetch an equal, if not a better, price. He spoke of the importance of the individual and the necessity for team work, and concluded by quoting the words of Kipling:

> "T'aint the individual nor the army as a whole,
> But the everlasting team work of every
> bloomin' soul."

Mr. Milne, representing Messrs. Harrod's, Ltd., in his opening remarks said that he had just read the Report of the Ministry of Agriculture, and he was pleased to say that they agreed with his own ideas. He said they wanted eggs of the right quality and the right grade, and in numbers, and they had difficulty in securing the quantities they wanted at the right time of the year. The British egg compares very unfavourably with that of the imported. He suggested that 2½ ozs. should be the first grade and 2 ozs. the second grade, emphasising the necessity for cleanliness of eggs and strengthening the texture of the shell. Packing for transport was of considerable importance, and he spoke very forcibly of the want of care in cleansing cases, and packing in damp straw. Referring to dead poultry, he said that a well-fed English chicken could not be beaten, but it was advisable that a different method of killing should be adopted. The dislocation of the neck caused congestion of the blood in the neck. He had that day received some birds from Hamburg, which for quality could hardly be surpassed.

Capt. A. L. Hunt spoke of the necessity of co-operation between the retailer and the producer. He said that co-operation is misplaced when applied to one party alone. True co-operation means co-operation between all producers, retailers and consumers.

Speaking of quality, he said, to the retailer freshness was of the most importance. The producer offered eggs in an unknown quantity in small numbers. The foreigners graded eggs in large numbers, and there was a guarantee of freshness. He did not think the best method was for the distributor to buy eggs by weight and grade them, as it did not tend to produce quality, and the price of the smalls was the same as that of the large. (2) To send eggs in bulk, distributors grade and pay in grades; this he dismissed as too difficult. (3) The best method was for the producer to do the grading, and to standard grades which would be agreed to by representatives on both sides. The colour he did not think was important. He was against stamping our own eggs. The producer could not afford to do the candling. He said it will be a bad policy to sell stamped eggs except to the consumer, and it will do an immense amount of good if the railway companies would advertise fast goods trains for agricultural produce.

In the discussion which followed, Mr. Tom Barron asked Mr. Milne what difference in price he was prepared to pay between a 2½ oz. egg and a 2 oz. one? Mr. Milne replied: This was rather difficult to answer, but he said 3d. or 4d. per dozen. Mr. Hamnett pointed out that if such was the case, Mr. Milne was asking for 25 per cent. greater weight, and only paying 12½ per cent. more for it.

Mr. Hamon said that he had graded eggs, and that he could only realise 1d. per dozen for large over small eggs.

Capt. Hunt admitted the retailer was responsible for the small egg.

Mr. Wilkinson spoke of quality, and said that the colour of the yolk helps the sale every time. Italian yolks had the deepest colour; Irish the next. Bakers want eggs with deep yolks. Mr. Edward Brown spoke of the pale yolks which had resulted as a consequence of the very intensive methods practised in Petaluma. Mr. Oscar Brown said that he hoped the meeting would get away from details. At that moment they wanted principles and not details. 80 per cent. of the eggs were produced on the general farms, and the farmer must improve, and be appealed to all who worked with the National Farmers' Union and the National Poultry Council. The N.F.U., who are forming local committees, should let them stick to the main job of producing eggs and meat and marketing it.

Mr. Tom Newman referred to Mr. Milne's remark anent the 2½ oz. egg, and he stated that it could not be economically produced. If the distributor better understood the position of the poultry farmer he would not demand the 2½ oz. egg as a first grade egg, and at the same time ask for an increased production during the autumn and winter months. They could not breed pullets to lay 2½ oz. eggs, and if such an attempt was made he had no hesitation in saying that, placing the average production of the commercial egg farms at 150 eggs per bird per annum, it would speedily fall to 100 eggs. In his opinion the 2 oz. standard was sufficiently high, and the 2½ oz. egg an impossibility.

Mr. Hewitt, representing the Co-operative Wholesale Society, said he was deeply interested in one person whom they had not considered, i.e., the consumer. There was a great deal to be done to get eggs to workers. While quality counts, price counts, and the 2d. egg is a blessing to the worker. The foreigner's imports would increase. The railways were a great deal at fault.

Mr. Street-Porter said that the Conference had been called to see how best we could compete with the best grade foreign eggs, and we were not getting down to rock bottom. Foreign eggs are better graded. He said there should be co-operation to grade and standardise, and to educate the farmer.

A delegate from the Grocers' Federation said that the retailers' view was, in the majority of retail shops, that English eggs were wanted, but they were persisting with the marking of foreign eggs. This would increase the cost of living; the stamping of the foreign egg would reduce its value. Recently they had asked their salesmen whether they preferred the Chinese or the Danish egg, and they said that they preferred the Chinese eggs because of their better quality.

Mrs. Murray, of the East Sussex Branch of the Farmers' Union, spoke of the necessity of propaganda. We are all too keen on voluntary effort. The public preferred a brown egg; the brown egg is heavier, but the farmer cannot grade. She pleaded for a national system of collection run by small societies, and for a central clearing house to direct the distribution of produce.

This concluded the morning session.

The afternoon session opened with a paper by Mr. Bennet Opie, who spoke on marketing from a wholesaler's point of view. He said that he had nearly fifty years' experience. Retailers preferred English eggs, but were compelled to buy foreign. A reputation for good eggs was a great asset to the retailer, and he spoke of the value of good eggs to the provision trade. The English egg was losing its supremacy, for foreign grading and packing was much better. The trouble came from the ordinary farmer, who looked upon eggs as a sideline, or as pin-money for his wife. Buying in weight was essential, and he asked if there was any other food which is not dealt with by weight and not by measure. The custom of buying by count must change. The real English new laid was in a class by itself; it had no superior. Late in the season they found the quality was very bad, and he stated that eggs were held over for a higher price, so that many stale eggs appeared in each consignment, and this dishonesty must be overcome by State discipline.

The time had come when the Ministry of Agriculture should study the Danish, the United States, Canadian, and the recent Irish legislation in regard to the marketing of eggs, and get powers to do the same. A standard package was necessary, and eggs should be sent in unreturnable boxes. This was not an insurmountable difficulty. Mr. Marshall, of the Express Dairy Co., said that when eggs began to rise in price their trouble with bad quality began. He always looked upon the arrival of the pullet's egg as a good sign and a promise of better things. The 2½ oz. egg was an impossibility; the 2 oz. egg would just pass, a little over 2 ozs. was about right. Size was not freshness. He wanted quality all the time, and he found that many English eggs had not the same freshness as Dutch and Danish. He said that gambling began in the spring, and he found that when producers had not been able to get the price they expected they held their eggs, and he mentioned in one case that he had found eggs stored in July to sell in November.

Mr. Slate, of Staffordshire, complained that it was the grocers who put the stale eggs on the wholesale market.

Mr. Buchanan, of Norfolk, said that only collective work could be done, and the organisation must be done by the National Farmers' Union and the National Poultry Council. The co-operative societies had tried and failed. He said that last year in a contract with the Co-operative Society he was paid 1s. 8d. per score, when in the open market he was getting 2s. 4½d.

Mr. Warren, of the Framlingham Society, then read a paper describing the work of the society, which he said was started in 1903. Last year they had handled 22 million eggs. In the early days their members were compelled to stamp them, and in a few months all bad eggs were gone, but the consumers objected to stamped eggs. Their first trouble began during the war, when the submarines sunk the British ships. It was then that the multiple shops invaded their district and took all eggs, bad and good. They had then to do away with the marking. In the last two years they had somewhat recovered their position. When prices began to rise in October and November, stored eggs came, and for the first offence they warned the offender; in the second their agents were instructed not to buy. He gave an illustration of this of one producer who had sent in 460 eggs on April 9th, and on October 8th had sent in 500. It was better to lose eggs than money. Duck eggs were a nuisance, because of their dark yolks. Unfortunately quality had been sacrificed by quantity. There was a continuous loss of size in the English eggs. The tanks which they had built, which would take only 110,000 eggs in the first year of the society, now held 115,000, and there was room to spare. The heavy cost of carriage was severe. In pre-war days what cost 10d. now cost 2s.

Had the Framlingham Society been able to continue its old methods, which they had abandoned because of the invasion of the multiple shops, we should never have seen the public prefer the foreign egg.

Mr. Hoskings, representing the Cornish Farm Producers' Association, read a similar paper, and in opening he remarked that what he had to say was practically a repetition of all that had been said before. He appealed to the National Farmers' Union to educate their members. In his dealings he found that the backyarder gave the smallest percentage of bad eggs; then some of the larger producers. The greatest offenders were the general farmers. There were too many breakages in transport, and too much rough handling.

Mr. Sydney Smith, Marketing Expert to the Government of Northern Ireland, was then called upon by the chairman to address the meeting. He said they must have quality first, and to organise on a voluntary basis was absolutely useless. There must not be a milk and water policy; if they really wanted to organise the English egg trade and fight the foreigner they must have a campaign in favour of better eggs. He had conducted one in Northern Ireland. He much amused the meeting by stating that he had carried round a dirty linen collar and a clean cotton one, and had asked those who attended his meetings which they would prefer; they had invariably preferred the clean cotton collar, and then he had asked them, "Well, don't you think the consumer who goes into the shop has the same opinion about the eggs?" There was far too much holding over. They should get the Ministry of Agriculture to enforce Section 28 of the Public Health Act. This could be made to apply to eggs. He said that they had appointed subordinate officers who had been taught to test eggs.

In November, 1924, Irish eggs were 2s. 6d. to 4s. 6d. less than Danish; in 1925 the price was 4s. 6d. to 7s. more than Danish. He was altogether in favour of the unreturnable cases. These could be bought in the flats, and they had bought 5,000 at 1/10½ each.

Their trouble now was that they had not enough eggs to sell; they had tried to enforce the compulsory buying by weight, but it could not be carried. Now the merchants were clamouring for it. They had put six or eight men out of business last year for attempting to market stale and bad eggs. He was not in favour of the foreigner being compelled to stamp his eggs.

Mr. Smith's speech was listened to with close attention by the delegates, and he was loudly applauded when he sat down. The discussion which followed was general, and a representative from Somerset stated that the Street Society was the first one to start co-operation in this country, and for a few years had been a great success. There had been seven societies in the county, but now there was not one. He was of opinion that the marketing of eggs and the selling of table poultry does not lend itself to management by the

Committee. They had lost thousands of pounds. Referring to a question by Mr. Juniper, Mr. Warren said his view was that the Co-operative Societies did not interest themselves in table poultry. He said that you cannot have eggs and table poultry. His society had lost thousands through attempting to obtain birds from their members and fattening them, and they had also imported birds from Ireland for that purpose, but it had been a dismal failure.

Mr. Henderson, representing the Staffordshire Branch of the N.F.U., stated it would be a great mistake to introduce any legislation, as it might frighten the farmer and reduce the number of hens in the country.

After discussion the following resolution was moved by Mr. Buchanan, and seconded by Mr. Street-Porter :—

> "That this Conference placed on record its appreciation of the value of the proceedings to all branches of the industry, and its thanks to the National Poultry Council and National Farmers' Union for organising the meeting. That the Conference requests that these two bodies continue to co-operate for the consideration of matters under discussion and for the formulation of a definite proposition to be referred to the various organisations represented here to-day."

The resolution was carried unanimously, and this closed the business.

CHESHIRE COUNTY COUNCIL.

EGG-LAYING COMPETITION (1925-6) SINGLE BIRD TEST.

Report on Results for Third Months—Dec. 10th to Jan. 6th.

The flock average for the month is 12.0 eggs per bird. The average for the light breeds is 12.2, and for the heavy breeds 11.9. Five birds in the light breed section, and nine birds in the heavy breed section did not lay. Moulting was observed in four birds. One bird was sick.

Figures are Eggs for Period and to date respectively.

Light Breeds.—A. Dixon (W.L.), 22, 63; A. D. Tobler (W.L.), 18, 58; Mrs. N. Viney (W.L.), 18, 55; Barrowmore P. Farm (W.L.), 18, 57; Mrs. N. Viney (W.L.), 20, 58; Mrs. E. Johnson (W.L.), 19, 58.

Heavy Breeds.—E. Paterson (Buff Orp.), 20, 64; Mrs. Viney (W.W.), 19, 61; J. Higmett (W.W.), 18, 60; C. Richards (W.W.), 18, 56; C. Davenport (R.I.R.), 17, 51; Mrs. E. Johnson (L.S.), 11, 48.

HANTS COUNTY LAYING TRIALS.

Report for Third Period ending January 6th, 1926.

Figures are Eggs for Period and Total Points to date respectively.

Section A.—Messrs. F. and C. Brundett (W.L.), 72, 725; A. F. Holdaway (W.L.), 42, 429; Mrs B. A. King (W.L.), 38, 359; Capt. R. Mackenzie (W.L.), 70, 678; Mr. H. Record (W.L.), 52, 454; Mr. F. S. Wilkinson (W.L.), 53, 492.

Section B.—Miss W. Clarke (R.I.R.), 46, 436; Mr. J. H. Thompson (W.W.), 62, 615; Mrs. G. Harper (R.I.R.), 72, 625; Capt. R. McKenzie (W.W.), 49, 480; Mrs T. F. Cordery (W.W.), 30, 327; Lord Wandsworth, Agricultural College (L.S.), 48, 509.

FOOD PURCHASE SCHEME.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

Fish Meal (Pure White)	20/0	F.O.R. London.
,, ,, ,, ,,	20/0	F.O.R. Bristol.
,, ,, ,, ,,	19/0	F.O.R. Swansea.
,, ,, ,, ,,	19/0	F.O.R. Tynemouth.
,, ,, ,, ,,	19/9	F.O.R. Grimsby.
,, ,, ,, ,,	18/3	F.O.R. Bradford

PRICES OF MASHES, PER CWT.

	Layers	Growers	Breeders	Chicks
F.O.R. LIVERPOOL ...	11/3	11/3	11/6	12/0
F.O.R. LIVERPOOL ...	12/0	12/3	13/6	13/6
F.O.R. LONDON	12/0	12/0	13/0	13/3
F.O.R. LEITH	11/3	11/3	12/3	13/0
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. GREENOCK ...	12/3	12/6	13/3	13/9
F.O.R. KING'S LYNN ...	11/3	11/3	11/9	13/0
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/9	11/9	12/9	13/3
F.O.R. SOUTHAMPTON ...	11/9	12/0	12/3	11/6
F.O.R. PLYMOUTH ...	12/9	13/0	12/9	14/6
F.O.R. ABERDEEN	12/9	11/9	13/9	13/9
F.O.R. HARROGATE ...	12/9	12/6	13/6	14/0
F.O.R. GLASGOW	12/3	12/3	12/3	13/3
F.O.R. STAFFS	11/6	11/6	12/9	12/6
F.O.R. SUSSEX	11/6	11/9	12/6	12/0
F.O.R. TEWKESBURY ...	11/9	11/3	13/0	13/9
F.O.R. HERTS	11/9	11/3	12/0	12/6

		Per Cwt.
MAIZE GRITS ...	F.O.R. LONDON	11 0
MAIZE GRITS ...	F.O.R. IPSWICH	11 0
S.G. OATS	F.O.R. LONDON	12 3
S.G. OATS	F.O.R. SUSSEX	12 6
S.G. OATS	F.O.R. BRISTOL	13 0
MEAT & BONE MEAL	F.O.R. LONDON	13 9
MEAT MEAL	F.O.R. LONDON	14 3
MAIZE GERM MEAL	F.O.R. LONDON	9 6
MAIZE GERM MEAL	F.O.R. IPSWICH	9 6
MEAT & BONE MEAL	Carriage Paid	15 3
MEAT MEAL	Carriage Paid	15 9

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

We can now offer the following articles in 1 cwt. lots, Carriage Paid, to all members in Sussex, Surrey, Hampshire, and Kent:—

LAYERS' MASH	13/6 per cwt.
BREEDERS' MASH	14/0 per cwt.
GROWERS' MASH	13/3 per cwt.
CHICK MASH	15/6 per cwt.
SUSSEX GROUND OATS	15/0 per cwt.
CHICK FEED No. 1	19/6 per cwt.
CHICK FEED No. 2	17/6 per cwt.

These cannot at present be supplied to counties other than those mentioned above.

THE MIDLAND FEDERATION PRIZE FUND SCHEME—AIMS.

PROPOSED PROGRESSIVE POULTRY INSTRUCTIONAL SCHOOL.

We are kindly asked to remind all receivers of books of tickets in connection with the Midland Federation Prize Fund Scheme to return all counterfoils and subscriptions as soon as possible, and no later than the closing date, next Monday, February 8th, 1926.

The Committee earnestly hope all will do their best to participate in this Mammoth Prize Scheme, and to make their estimates on each counterfoil returned.

It is hoped that a substantial sum can be handed over to the National Poultry Council from this fund, in addition to establishing the finances for the New Midland Laying Test, which is estimated to cost £5,000, in order to be able to purchase and equip one of the most up-to-date Test Plants in the country near Birmingham.

A great effort is being put forward to secure this end.

It is also proposed by the Midland Federation to conduct a special instructional Poultry Farm School, particularly for the small breeder, in conjunction with the New Midland Test.

This school will be equipped with special scientific laboratories, searching for investigation into the more practical and useful branches of commercial and pedigree breeding.

For some years Mr. Brain and his technical staff have made a deep study of progressive fecundity in pedigree layers, with the idea of learning exactly the stock parent birds which produce improved progeny.

Through the aid of much valuable data collected from research, made with special blood pressure and circulating test apparatus, a vast amount of important knowledge has been gleaned, which it is hoped will be of inestimable service to the industry of poultry breeding in the future. If the Midland Federation can get this Test and their Instructional Poultry School going, such work can be continued more satisfactorily without continuing to be the big drag on the private purses of a number of enthusiasts which it has been for a few years.

The Midland Federation had recently been strengthened by the addition of Dr. G. Walworth, M.A., Cantab, who has recently joined the technical staff, while for some time the Federation have enjoyed the help of a number of noted pathologists.

In connection with chick rearing experiments a Violet Ray Equipment will be installed, and recently one of the latest American Rotary Electrical Incubators has been received, which is being installed for experimental use. This will be followed by the testing of a new development in electrically-heated foster mothers, which gives promise of meeting a big need of the future.

This is only part of the programme suggested in which poultry will play a large part in establishing degrees of standardisation, not only necessary for utility stock, but for those people who wish to start building up poultry farms in units of 500—1,000 and upwards.

Special attention will be paid to the close study of practical disease problems, and particularly those queries which trouble the progressive poultry-keeper year after year by their great variation, upon which much intensive research is desired.

It is a big task that the Midland Federation are about to embark upon, and we hope the industry will give their best support to this big financial push they have in hand.

As a special reminder, all counterfoils, subscriptions and unused books must be returned no later than Monday next.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

Whitehead, H. E., Geneva Cottage, St. Mary's, New Romney Hants
Cable, S. A., Lidbury Hall P.F., Munden, Ware, Herts.
George, H. D., The Poultry Farm, Branston, Grantham.
Krause, W., Walnut House, Bulcote, Notts.
Appleton, W. R., Home Farm, Harborne.
Woodfin, G. H., Hadley, Wellington, Shropshire.
Peachey, F. W., Brokendean, Gorsley, Newent, Glos.
Yeend, C. A., The Gables, Westmancote, Tewkesbury.
Dickie, G., Kirkland Terrace, Glengarnock, Ayrshire.
Aitken, G., Lindores, Newburgh, Fife.
Elverson, Major J. H., The Nursery House, Groombridge, Sussex.
James, E. H. S., Binstead Lodge Farm, Binstead, I.O.W.
Dunlop, J., Westfields, Sutton Scotney, Hants.
Booth, J. T., "Mountcroft," Holcroft Lane ,Culcheth, near Warrington.
May, F. G. Le, Tigstan, Warren Road, Wanstead, E.11.
Beckenham, S. C., Hillview P.F., Little Woodcote, Wallington, Surrey.
Bull, Dr. A. G., Kingsthorpe, Northampton.
Stock, R. B., The Cricket Hill P.F., Cricket Hill, Yateley, Hants.
Cooper, Capt. D. J., Hyde End Lodge, Shinfield, Reading.
Swallow, W., The Beacon, Newport Road, Lake, Sandown, Isle of Wight.
Morgan, F. J., Ratley Close, Awbridge, near Romsey, Hants.
Andrews, S., 54, Oxford Street, Grantham.
Sykes, H. R., Poultry Farm, Tile Hill Lane, Coventry.
Goater, Miss G., Ham Green House, Sparsholt, Hants.
Gilmour, Mrs. M., Wetgate Farm, Heatley, Cheshire.
Holliday, T. Skelton-, Staffield Lodge, Kirkoswald, Carlisle.
Howland, J. A., Rectory Farm, Brampton, Huntingdon.
Pratt, Miss E. V., Brock Hall, Leominster.
Houghton, Capt. M., Belle Royd, Blackshaw, Hebden Bridge, Yorks.
Crofts, C., Belton Road P.F., Hathern, near Loughborough.
Brankston, Miss M., South Lodge, Stockbridge, Hants
Tulloch, R., Tullochside, Redbourne, St. Albans, Herts.
Gorman, F., 19 Mess, Fort Blockhouse, Gosport, Hants
Clarke, Miss P. M. G., South Farm, Overton, Marlborough, Wilts.
Crabb, J. H., 36, Occupaton Road, Hazel Grove, Hucknall, Notts.
Orr, Miss M., Saxonbury Lodge, Frant, Sussex.
Tweddle, J., Gamekeeper, Monzie Castle, Crieff, Perthshire.
Midgeley, H., 57, Prospect Street, Farsley, near Leeds.
Barnett, H. E., Hill House, Kentisbeare, Cullompton, Devon.
Watson, Hon. David K., Cross Park, Brixham, S. Devon.
Mitchell, Mrs. W., Wester, Balgarvie Farm, Cupar, Fife.
Mottram, R., Victoria P.F., Freshfield, near Liverpool.
Lauriston, Robt., Old Birkwood, Lesmahagow, Lanarkshire.
Jackson, K. F., Priory Villa, St. Catherine's, Lincoln.
Stokes, F. W., Little Baddow, Chelmsford, Essex.
Cable, F. C., 38, Teviot Street, Poplar, London, E.14.
Yates, T., No. 2, St. Stephen Road, Little Harwood, Blackburn
Taylor, H., Taylor Croft Head Farm, Little Harwood, Blackburn.
Green, H. Holly Lodge Farm, Fishpool, Mansfield.
Langmead, Miss G. N., Northwood, Ford, Arundel, Sussex.
Buckley, H., 6, Glen Grove, Middleton Junction, Manchester.
Peachey, H. M., The Egg Farm, Burton Joyce, Notts.
Whitehouse, Miss H. D., "The Hillside" P.F., Idridgehay, Derby.
Hanson, T. H., 229, Station Road, Wylde Green, Birmingham.

THE INTERNATIONAL EGG-LAYING TEST, 1925-26.

SUMMARY OF LEADING PENS.

Figures are Eggs and Points to date respectively:—

Large Breeders—Section 1.—Miss A. Paul, Blairgowrie, 486, 507; I. B. Gow, Cobham, 449, 476; W. Crabtree, Twiston, 409, 414.

Large Breeders—Section 2.—R. Rodwell, Nelson, 432, 426; F. Snowden, Cowling, 409, 399; G. Mart, Euxton, 336, 336.

Large Breeders—Section 3.—E. Yates, Penwortham, 537, 519; C. Bates, Samlesbury, 500, 504; Gettern Model P.F., Ainsdale, 492, 476.

Large Breeders—Section 4.—F. Harvey, Bretherton, 513, 517; R. Rodwell, Nelson, 499, 459; J. R. Welsh, Bewdley, 436, 448.

Large Breeders—Section 5.—F. B. Evers-Swindell, Ruthin, 259, 252; H. Seddon, Holmfirth, 224, 231; J. & W. Purdie, Lanark, 228, 229.

Small Breeders—Section 6.—R. W. Hully, Clifton, Manchester, 182, 194; Mrs. M. B. Clay, Long Preston, 138, 141; W. Ashcroft, Tarleton, 117, 121.

Small Breeders—Section 7.—Dr. J. E. Helm, Rossendale, 308, 300; J. & W. Purdie, Lanark, 260, 257; Mrs. M. B. Clay, Long Preston, 272, 254.

Small Breeders—Section 8.—R. Hodgkinson & Son, Culcheth, 237, 236; R. Rawcliffe, Goosnargh, 238, 234; W. J. King, Leamington, 223, 197.

Single Bird—Section 9—Light.—A. V. Wallis, Oxford, 50, 63; W. Golden, Rugby, 64, 65; Rogers, W., Market Drayton, 59, 55.

Single Bird—Section 10—Heavy.—P. G. Espinasse, Oxon, 60, 66; Black Lake P.F., Egham, 62, 61; J. Rainford, Penwortham, 51, 58.

Juvenile Breeders—Section 11—Light.—Miss W. Banks, Freckleton, 169, 163; R. Collinson, Garstang, 155, 149; Miss E. Barron, Catforth, 134, 128.

Juvenile Breeders—Section 12—Heavy.—Miss E. Barron, Catforth, 262, 252; R. Gabbott, Little Hoole, 263, 250; Miss E. Barron, Catforth, 227, 232.

WEST SURREY POULTRY SOCIETY LTD.

WINTER LAYING TEST, 1925-26.

Report for the Fourth Month (4 weeks)—Dec. 28th to Jan. 24.

Figures are Eggs and Points to date respectively:—

White Wyandotte.—Capt. M. H. G. Britts (b), 248, 192; Capt. M. H. G. Britts (a), 186, 186; H. Rowntree (b), 157, 157.

Rhode Island Red.—H. W. Homewood, 202, 136; J. B. Bantoft, 132, 127; N. Surrey P. Farm, 102, 101.

Light Sussex.—Sir J. Leigh, 195, 162; G. R. Reakes, 179, 156; Burrows Lea P. Farm, 246, 144.

A.O.V. (Heavy).—Class cancelled.

White Leghorn.—W. Ezzard, 215, 215; Mrs. C. R. Harding, 185, 182; H. G. Hood & Sons, 187, 116.

Black Leghorn.—H. G. Hood & Sons (b), 171, 168; H. G. Hood & Sons (a), 143, 142; H. Rowntree, 163, 103.

Each pen consists of four pullets.

BUCK COUNTY EGG-LAYING TRIALS.

Report for Second Month.

Figures are Eggs and Points to date respectively

Section 1. Single Bird. Heavy Breed.—A. E. Ford (W.W.), 15, 166; W. A. and H. O. Blake (Aus.), 18, 152; Miss L. Hiorns (W.W.), 12, 135; A. L. Rigby (W.W.), 10, 102; H. Poulton (W.W.), 9, 96; Major Caldwell (W.W.), 3, 32.

Section 2. Light Breed. Single Bird.—A. L. Higby (W.L.), 13, 162; Capt. C. E. May (W.L.), 11, 125; A. E. Ford (W.L.), 11, 112; Mrs. Burgess (W.L.), 8, 80.

Section 3. Three Birds. Heavy Breeds.—Capt. C. E. May (R.I.R.), 46, 595; G. and T. Rowe (W.W.), 36, 390; Capt. C. E. May (W.W.), 27, 288; P. G. Lewis (W.W.), 21, 212; E. Davis (W.W.), 12, 120; Major Tubbs (W.W.), 10, 100.

Section 4. Three Birds. Light Breeds.—Capt. Bewicke (W.L.), 25, 272; G. and T. Rowe (W.L.), 21, 215; G. W. Rampton (W.L.), 21, 252; A. E. Ford (B.L.), 3, 30; E. Davis (W.L.), 18, 237; P. G. Lewis (W.L.), 8, 80.

Section 5. Five Birds. Heavy Breeds.—A. E. Ford (R.I.R.), 35, 438; H. S. Wood (W.W.), 32, 338; Major Kingscote (R.I.R.), 17, 221; Major Kingscote (W.W.), 15, 152; Major Caldwell (W.W.), 4, 40.

Section 6. Five Birds, Light Breeds.—Capt. Doyle (W.L.), 28, 395; A. E. Ford (B.L.), 29, 327; Major Kingscote (W.L.), 17, 185.

Open Classes. Section 7. Three Birds. Heavy Breeds.—A. E. Ford (W.W.), 33, 385; Haddon Emeney (W.W.), 35, 438; Major Tubbs (W.W.), 27, 284; Haddon Emeney (R.I.R.), 19, 220; H. Sidebottom (W.W.), 20, 231; Mrs. D. E. Greenslade (R.I.R.), 26, 335.

Open Classes. Section 8. Three Birds. Light Breed.—Mrs. Greenslade (W.L.), 41, 500; J. A. Howarth (W.L.), 25, 250; Haddon Emeney (W.L.), 12, 150; A. E. Ford (W.L.), 18, 208; F. G. Mansell (W.L.), 19, 225; R. and W. Wickens (W.L.), 12, 143.

Australorps.—J. J. Hetherington, 24, 273; Mrs. Jackson, 14, 158; W. C. Crossland, 31, 352; S. C. Roscoe, 30, 350; Mrs. Weinholt, 6, 69; A. F. Smith, 11, 112.

Pile, Duckwing, and Cuckoo Leghorns. Standean Poultry Farm (C. Legs.); Mrs. F. Bunker (L. Legs); S. Bertram (D. Legs.), 1, 12; Lucas and Power (C. Legs.), 1, 10; R. G. P. Nelson (P. Legs).

White La Bresse.—Mrs. Kingscote, 32, 350; G. Fox, 24, 296; Mrs. Parke, 19, 220; Sir C. McGrigor, 16, 178; Mrs. Kingscote, 19, 212; Mrs. Kingscote, 15, 160.

LANCASHIRE FEDERATION OF UTILITY POULTRY SOCIETIES' LAYING COMPETITION.

Held at the Lancashire County Council Farm, Hutton, under the supervision of Mr. H. C. Dobbin, the County Poultry Instructor, who reports everything satisfactory. The severe weather has checked the egg output, but only one or two birds have been in hospital.

Third Month's Report—10th December, 1925, to 6th January, 1926.

The following are the leading positions in each section showing the number of eggs and points respectively.

Section 1. White Leghorns. Large Breeders (Three Birds).—R. Beesley, 130, 1064; H. Cook, 156, 1010; P. Williamson, 140, 962; A. Heap, 159, 924; G. H. L. Armstrong, 117, 867; C. Morey, 124, 773.

Section 2. Any Other Variety Light. Large Breeders (Three Birds).—F. C. Tomlinson, 107, 883; J. P. Willacy, 102, 704; J. Ashworth, 75, 625; S. Street-Porter, 68, 523; W. Hamnett (one dead), 74, 452; Riley Bros (one dead), 66, 423.

Section 3. White Wyandottes. Large Breeders (Three Birds).—H. Sutton and Sons, 166, 1211; H. E. Helm (Dr.), 169, 1188; G. H. L. Armstrong, 125, 992; J. Rainford, 131, 984; H. Holden and Sons, 124, 925; J. T. Finn, 121, 870.

Section 4. Any Other Variety. Heavy. Large Breeders (Three Birds).—R. Moon and Sons, 151, 1211; T. B. Grice, 150, 1206; A. T. Walker, 151, 1067; J. Basnett, 148, 1052; J. Cobham, 138, 1043; H. Booth, 172, 962.

Section 5. Small Breeders. Single Birds. Light Breeds.—J. W. Halstead, 56, 444; W. R. Robinson, 48, 361; J. Thwaits, 51, 355; H. West, 48, 336; J. W. Makant, 36, 280; J. T. Halcroft, 36, 270.

Section 6. Small Breeders. Single Birds.—C. Hargreaves, 58, 382; T. Plumb, 44, 332; J. W. Pearson, 54, 324; A. D. Walton, 48, 310, G. A. Wolstenholme, 40, 308; W. R. Robinson, 36, 216.

DEVON COUNTY EGG LAYING TRIALS, 1925—1926.

Report for the Third Period—Dec. 10th, 1925, to Jan. 6th, 1926.

The pens of birds are housed separately in houses of the double type, each half giving four square feet of floor space per bird. Grass runs, measuring 12 yards by 10 yards, are provided for each pen of birds.

The site is 100 feet above sea level, exposed to South and West. The houses face South-East; the soil being a light sandy loam.

The weather during the period was of variable character, frosts, heavy gales, with much rain, but with occasional mild days.

The total number of eggs collected was exactly 500 in excess of the second period, partly due to birds moulting during previous periods now coming into profit. Two birds were broody during the period under review, and a few are still is moult or recovering therefrom.

The health of the birds continues excellent.

The total number of eggs laid to end of third period are graded as follows:—

Light Breeds (75 Pullets)).— During third period: Specials, 262; Firsts, 326; Seconds, 427; Non-scoring, 16. To end of third period Special, 497; Firsts, 750; Seconds, 1179; Non-scoring 91.

Heavy Breeds (125 Pullets).—During third period: Specials, 531; Firsts, 439; Seconds, 578; Non-scoring, 40. To end of third period: Specials, 1392; Firsts, 1258; Seconds, 1667; Non-scoring 116.

The highest scoring pens in each section to end of third period are as follows:—

Light Breeds.—Mr. H. C. Wood (W.L.), 286 eggs, 3000 pts.; Mr. G. K. Simmons (W.L.), 256 eggs, 2398 pts.; Mr. W. Runciman (B.L.), 205 eggs, 2047 pts.

Heavy Breeds.—Brig.-General M. E. Richardson (W.W.), 279 eggs, 2920 pts.; Mr. G. V. Thompson (W.W.), 276 eggs, 2767 pts.; Mr. H. C. Wood (W.W.), 265 eggs, 2667 pts.

GLAMORGAN AGRICULTURAL COMMITTEE.

COUNTY EGG-LAYING TRIALS, 1925-26.

Report for Third Period.

Heavy Breeds.—A. L. Davies, Morriston (W.W.), 1059 pts.; J. Joshua, Tondu (R.I.R.), 1032; R. J. Evans, Abertridwr (R.I.R.), 945; A. J. Jenkins, Barry (W.W.), 752.

Light Breeds.—Howell and Phillip, Barry (W.L.), 1347 pts.; A. J. Jenkins, Barry (W.L.), 911; D. J. Thomas, Pontardawe (B.L.), 868; D. Hopkins, Port Talbot (W.L.), 643.

Single Birds. Heavy Breeds.—H. Havlings, Ynysybwl (W.W.), 313 pts.; G. A. Monk, Ynysybwl (W.W.), 287; Miss K. M. John, Ynysybwl (R.I.R.), 274.

Single Birds. Light Breeds.—T. E. Lewis, Pontardawe (W.L.), 314 pts.

Wet mash birds laid 339 eggs during this period. Dry mash birds laid 441 eggs during this period.

Bird No. 2 of pen 6 (W.L.) died on December 13th, 1925, from a tumour on the heart and pericarditis.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, JANUARY 29th, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is in fair supply and meets a limited demand at lower prices, the average quotation being 12s. per cwt., as against 12s. 4d. a week ago. Imported is also a dull trade at easier figures. Both home-grown and imported barley and oats are in little request, and prices generally are lower on the week. British feeding barley now averages about 8s. 2d. per cwt., and English white and black oats 9s. 4d. and 8s. 9d. respectively. Maize is freely offered, and, with dull trade, quotations have again declined, Argentine averaging 7s. 8d. per cwt., as compared with 8s. 1d. in the previous week and 8s. 10d. at the beginning of January.

Both bran and coarse middlings are reduced at London and Hull, but at Bristol prices have advanced slightly on the week. Meals generally meet a quiet trade, and maize and barley meals sell at lower figures, the former averaging about £9 4s. and the latter £9 11s. per ton. Oil cakes are in little request, and both linseed and cotton seed cakes are reduced in price, average quotations being about 10s. per ton less than at the beginning of the year.

MILLERS' OFFALS.—Bran (British): Bristol, £8 7s; Hull, £7 12s: Liverpool, £8; London, £6 17s. Broad Bran: Hull, £9 2s; London, £9 Middlings:—Fine (Imported): London, £8 5s; Coarse (British): Bristol, £8 2s; Hull, £7 15s; Liverpool, £8; London, £7 5s. Pollards (Imported): Bristol, £6 10s; Hull, £6 5s; Liverpool, £5 7s; London, £6 7s. Rice Bran: Bristol, £7 7s; Liverpool, £6 15s. MEAL.—Barley Meal: Bristol, £9 5s; Hull, £9 10s; London, £9 17s Maize Meal: Bristol, £9 10s; Hull, £8 15s; Liverpool, £9 2s; London, £9 10s. Maize Meal (S. African): Bristol, £9 5s; Hull, £3; Liverpool, £7 17s; London, £8 5s. Maize Germ Meal: Hull, £9; London, £8 10s. Maize Gluten Feed: Bristol, £10 7s; London, £9 15s. Locust Bean Meal: Bristol, £9 15s; Hull, £10; Liverpool, £9 10s, London, £9 12s. Bean Meal: Bristol, £13 10s; Hull, £12 2s; London, £12 5s. Fish Meal: Bristol, £21 10s; Hull, £20 10s; Liverpool, £20; London, £20.

EGGS AND DEAD POULTRY.

Eggs are quoted at still lower figures for all except the cheapest varieties. Irish eggs are more freely offered, and those of best quality average 22s. per 120 over the three markets reported. Quotations for dead poultry are maintained, and a steady inquiry is experienced for the best birds, but other classes attract little attention.

Week-end Prices—Eggs (per 120): British, 21s 9d; Irish, 21s 0d, 20s 0d; Danish, 24s 9d, 23s 0d; Dutch (brown), 23s 3d, 21s 9d; Dutch (mixed), 21s 0d, 20s 0d; French (brown), 23s 6d, 22s 6d; French (mixed), 20s 9d, 19s 6d; Belgian, 19s 6d, 18s 9d; Italian, 19s 3d, 18s 0d; Egyptian, 9s 9d, 9s 3d; Moroccan, 13s 0d, 12s 6d; Polish, 15s 6d, 14s 6d; Chinese, 13s 0d, 11s 0d; Russian, 15s 0d, 14s 0d; Australian, 16s 9d, 15s 9d; Argentine, 13s 9d, 12s 9d; Styrian, 17s 0d, 14s 9d; Californian, 15s 6d, 14s 6d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 8d, 1s 6d; Irish, 1s 4d, 1s 3d; Others, 1s 6d, 1s 3d. Ducks 1s 6d, 1s 3d. Geese, 1s 3d, 1s 1d. Turkeys, 1s 8d, 1s 5d.

EGGS.

Per Doz.—Ashford: First, 2s 6d; Second, 2s 4d. Birmingham: First, 2s 3½d; Second, 2s 3d. Bridgwater: First, 2s 5½d; Second, 2s 4d. Chelmsford: First, 2s 7¼d; Second, 2s 4¾d. Colchester: First, 2s 3½d; Second, 2s 0½d. Doncaster: First, 2s 6d; Second, 2s 4d. Dorchester: First, 2s 2½d: Second, 2s 1½d. Exeter: First, 2s 0d. Hereford: First, 2s 3d. King's Lynn: First, 2s 5d; Second, 2s 3d. Llandilo: First, 2s 3d; Second, 2s 2d. Mold: First, 2s 2d; Second, 2s 0d. Montgomery: First, 2s 3d Newport (Mon.): First, 2s 5d; Second, 2s 3d. Norwich: First, 2s 8d. Oswestry: First, 2s 2d. Penzance: First 1s 8d; Second, 1s 7d. Saffron Walden: First, 2s 3½d; Second, 2s 1½d. St. Ives (Hunts): First, 2s 6d; Second, 2s 4d. Salisbury: First, 2s 2d; Second, 2s 1d. Skipton: First, 2s 3d. Truro: First, 1s 8d. Welshpool: First, 2s 0d; Second, 1s 10d. *Carlisle: First, 2s 5d. *Derby: First, 2s 6d. *Ipswich: First, 2s 3d; Second, 2s 0d. *Lincoln: First, 2s 3d. *Shrewsbury: First, 2s 3d; Second, 2s 1d. *York: First, 2s 8d; Second, 2s 7d.

FOWLS.

Per lb.—Birmingham: First, 1s 3d: Second, 10d. Doncaster: First, †5s 6d; Second, †5s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 4d. Llandilo: First, 1s 7d; Second, 1s 4d. Newport (Mon.): First, 1s 7d; Second, 1s 2d. Truro: First, 1s 4d. Welshpool: First, 1s 5d; Second, 1s 2d. *Derby: First, †6s 6d; Second, †3s 6d. *Ipswich: First, 1s 8d; Second, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d. *York: First, †6s 6d; Second, †6s 0d.

(Continued at Foot of Next Column).

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, February 3rd, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.

We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

DUCKS.

Per lb.—Birmingham: First, 1s 3d; Second, 1s 0d. Doncaster: First, †6s 6d; Second, †6s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 4d. Llandilo: First, 1s 7d; Second, 1s 4d. Welshpool: First, 1s 5d. *Derby: First, †6s 0d; Second, †4s 0d. *Ipswich: First, 1s 6d.

*At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers . † Per head.

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N.B.—Advertisements, unless accompanied by correct amount, will not be inserted.

Advertisements must be distinctly morked with the Heading under which they are to appear.

Advertisements must be written on a separate sheet of paper, and one side of the paper only.

Name and Address to be counted. In the case of a Box Number being used, the words, "Box." "Eggs," 94, Farncombe Street, London, S.E.16, to be counted as eight words, i.e., making a total extra charge of 1s. 8d. (1s. for Box; 8d. for address) per insertion.

Advertisements must reach this office
FIRST POST FRIDAYS
for insertion in the following Wednesday's issue. Those received after this time will be inserted in the next issue.

PLEASE WRITE CLEARLY, and TO AVOID MISPRINTING OF STRAINS, NAMES AND ADDRESSES. THESE SHOULD BE WRITTEN IN PRINTED CHARACTERS.

Displayed Advertisements.

Ordinary Page, £8 15s. 6d.; Half Page, £4 7s. 9d.; Quarter Page, £2 4s. 0d.; One Column, £2 18s. 6d.; Half Column, £1 9s. 3d. Quarter Column, 14s. 9d. One inch, 6s. 6d. Special Inside Pages, 25 per cent. on above rates. Cover and other Special Positions by arrangement. Discounts for Series. Full Scale of Advertising Rates on application.

Advertisements, addressed to Mr. S. H. **BURLES, "EGGS," 94, FARNCOMBE STREET, LONDON, S.E.16, MUST REACH US BY FIRST POST FRIDAY MORNINGS,** for insertion in following issue. Those received later will be inserted in the next issue.

A DEPOSIT SYSTEM has been adopted for advertisements, and Advertisers are asked to make full use of same. When remitting direct to the Editor on deposit, the full amount of purchase money should be sent, and six penny stamps extra to cover cost of acknowedgment of same. Cheques should be made payable to the Editor and sent direct to The Beeches, Rudgwick, Sussex.

EGGS.

FOR SALE.

Eggs for hatching. Rothschild's Light Sussex, Cam's White Wyandottes, Measures' Rhode Islands, Schimnel's Barnevelders, Hunter's Black Leghorns, Barron's White Leghorns; all direct strains; 6s. dozen; 45s., 100, by return, carriage paid. — Mrs. Porter, Dishley Grange, near Loughborough.

Eggs for hatching from good Utility Stock; various breeds; moderate prices. Please write for price list.—Arle Poultry Farm, Cheltenham.

A. A. Peake, M.S.P.B.A., Pedigree P.F., Hilderstone, Staffordshire. White Wyandottes (Registered); Rhode Island Reds, tested L2. Stock Birds. Sittings.

P. B. Adams, East Franklyns Poultry Farm, Hayward's Heath. Sittings, 13s. 6d.; Special Pen, £1 1s. Rhode Island Red, Red Sussex, Light Sussex. Black Leghorns.

Eggs for Hatching. R.I. Reds, Bostock Smith's; W. Wyandottes, Rodwell's; Black and White Leghorns, F. Snowden's; 6s., 15; 32s., 100 All birds on free range.—Edward Oatley, Manor Farm, West Ashton, Trowbridge.

BRITISH COLUMBIAN

White Wyandottes, imported direct; large eggs and stamina; winner several contests. Specialist 12 years. Mating List. —Read, Hutton Poultry Farm, East Grinstead, Sussex.

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Fertile Eggs, 50s., 100; fertility guaranteed. Sittings, 10s.; good type; prize-winning stock, in single mated pens.
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H. D. SIMMONDS, M.S.P.B.A.,

The Abbey, Thorpe-le-Soken, Essex, regrets he is unable to accept any further orders for White Wyandotte Eggs this season, owing to exceptional demand. Please book early for 1927.

WHITE LEGHORN EGGS FOR HATCHING.

None under 2ozs. 85 per cent. fertility guaranteed; Hanson, Bennet and Pike strains; mated to cocks and cockerels direct from the Misses Ransford, Pens VI. to X. All breeding stock on virgin soil. Inspection invited. 6s. a sitting; £2 a hundred; carriage paid.—Apply, Instow Poultry Farm, Langton Matravers, Dorset.

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My Advertisements last season. Stock better than ever. This season's prices: 40s. per 100; £18 per 1,000. Guaranteed my own produce Reliable and genuine. Special prices, Mammoth's. Carriage paid.—Webster, S.P.B.A., Regent Poultry Farm, Heyhouses, Lytham.

LIGHT SUSSEX EGGS.

Hatching Eggs; separate pens; 40s. per 100.—Rectory, Stokeclimsland, Cornwall.

DON'T MISS THIS CHANCE!

Hatching Eggs. White Leghorns, winners of Three Gold and Three Silver Medals, Laying Trials; Anconas, my world-record strain; 5s. dozen. Illustrated Catalogue free.—W. A. Darracott, Mandeville P.F., Aylesbury.

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3,000-Egg Incubator capacity.—Particulars **F. G. H. Greaves, Woodbank P.F., Herstmonceux, Sussex.**

WHITE WYANDOTTES.

The Sunnycroft strain have been bred on scientific lines, and trap-nested for fourteen generations. Eggs, 10s. and 7s. 6d. dozen.—Fred W. Wait, Sunnycroft, Burton Joyce, Notts.

EGGS.

FOR SALE.

Eggs for hatching. L. Sussex, Lei
Rothschild; hen's records 180-220; R.
Hens, records 200-263, mated to Bouch
sire from 282 dam. All birds trap-nes
Free from disease; 7s. 6d. for 15. — Jo
Coldblow, Bonnington, Ashford, Kent.

Light Sussex and Rhode Island Re
Sitting Eggs from 12s. 6d. doz., inferti
replaced; Chicks double. All breed
stock trap-nested. Mating List on appli
tion.—J. O. Widdows, Kingsbury Fa
Rotherfield, Sussex.

Sittings of Buff Rocks, also Light Sus
from carefully selected birds bred
stamina, type and productiveness; 6s.
15, unreplaced. I have never had dise
on my farm.—Lea, Tenoaks, Ringwood.

Eggs. White Wyandottes, White L
horns; 180-251; T. Barron's direct. R.I
Boucher's-Measures', 180-263. R.I.R., ma
Golden's 228-263, sire's dam; 7s. 6d., 15; 5
100. R.I.R. x L. Sussex and W. Wy
dottes; 6s. 6d., 12; 42s. 6d., 100; no repla
ments. Chicks double.—C. Robinson, Gra
ley, Andover, Hants.

Rhode Island Red (Crowley), also Ga
x Sussex. Sittings from 6s. 6d. for 14;
replacement; reduction for quantity. Me
ber, S.P.B.A., seven years. — Dalglie
Lyntondene, Headley, Hants.

Light Sussex Eggs from wonderful win
layers, on free range; hatching vigoro
hardy chicks; 6s. dozen.—H. de Wint
Abbot's Lodge, Gloucester.

Barnevelders that lay and pay; eg
10s. 6d. dozen.—Fletcher Hearnshaw, B
ton Joyce, Nottingham.

White Leghorns, Wyandottes, and Rh
Island Red. Sittings. 5s doz.; good strai
No replacements. Large eggs. — Darli
Fawkham.

Pure-bred Light Sussex, White Legho
Selected eggs from second season he
7s. 6d. per dozen. — Write, Alex. Wils
M.S.P.B.A., 92, Bankhead Road, Bucksbu
Aberdeen.

Deep Rich Red Sires, from Bouche
1925 registered pens direct; dam's reco
294 and 298; mated Boucher's and Bouch
Golden hens. Eggs, 8s. 6d. dozen.—Hold
Dirker, Marsden, Huddersfield.

Light Sussex, White Wyandottes,
chequer Leghorns; 7s. 6d. dozen; 30s.,
57s. 6d., 100. Trap-nested stock; gra
layers of large eggs; unfertiles replaced
Major and Mrs. Everett, Castelmer, Ki
ston, Lewes.

75 Per Cent. HATCH GUARANTEE

If less hatch, all eggs returned replac
free, whether infertile or not. I have co
fidence in eggs from my stock. Tra
nested White Leghorns, with records
to 250 pullet year, and 2oz. eggs within t
months laying. Also Rhodes, Light Suss
Silkies, Exhibition Rhodes, and Black
pingtons. 10s. dozen, or 7s. 6d. dozen,
replacements. Inspection invited. — G
Howard, Sperrin Poultry Farm, Foll
Road, Stotfold, Baldock.

COMPARE These RECORDS and PRIC

R.I.R. Pen includes records 251-269, 2½
2½oz. eggs. L. Sussex, records 219-254;
Leghorn, records 238-246; W. Leghor
records 263-285. Mated to tested cocks fro
high record hens 9s. per sitting. Mati
List free. — Capt. Barnes, Kenilwor
(Breeding Station under Ministry of Ag
culture).

Capt. BARNES, KENILWORTH

Light Sussex, R.I.R., W. Wyandott
Black Leghorns, W. Leghorns. Eggs, 42
100; 23s., 50; 7s., 15.

EGGS
THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN

(Founded in 1912 by RANDOLPH MEECH).

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Edited by TOM NEWMAN
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Six Months " " 6/4
Three Months " " 3/3

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"SALCA" X, 15/- cwt., 8/3 ½-cwt., 7lbs 1/7.

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AGAIN IN 1923 MY PEN AT HARPER-ADAMS' TRIALS WON SILVER MEDAL WITH A BETTER GRADE OF EGG THAN ANY PEN IN PUBLIC TEST IN 1923—i.e., 1,265, ONLY 11 UNDER 2 ozs. ALSO BEING AWARDED THE POULTRY CLUB MEDAL FOR BEST BREED CHARACTERISTICS (ONLY AWARD) IN THE SAME COMPETITION AND WITH SAME PEN.

AND AGAIN MY PEN 188 AT NATIONAL EGG TEST, HELD AT BENTLEY, 1923, WON SILVER MEDAL. 981 EGGS SCORE 981.

YET AGAIN MY PENS IN LAST YEAR'S HARPER-ADAMS' CHAMPIONSHIP AND NATIONAL EGG TESTS WERE AWARDED TWO FIRST AND SIX SECOND CLASS CERTIFICATES WITH AVERAGE WEIGHT OF EGGS 2.27 OZS.

FRED H. COLLINS
ST. JOHN'S P.F. BEWDLEY, WORCS.
LIST FREE ON REQUEST.

The 'Eclipse' Poultry Houses

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Maximum Light.

Immunity from Sickness.

Even Temperature.

Abundant Egg Yield.

The above points of perfection are secured when using "Eclipse" Houses, and this is the reason the demand for them is so heavy. During the last TWELVE MONTHS the OUTPUT of our works in "ECLIPSE" Houses has INCREASED FOURFOLD, and the houses supplied in 1925 if placed end to end would extend to within a few feet of half a mile. Not a bad record for a firm of less than three years standing, and advertising in no other journal but "Eggs." Giving ample proof of the SOUND DISCRIMINATION OF THE READERS OF "EGGS" and to the INFINITE SUPERIORITY of the "ECLIPSE" over all other types of houses. Illustrations however good cannot do justice to the "ECLIPSE" Houses. All we claim for the "ECLIPSE" Houses can be verified by any of our customers. We INVITE the closest INVESTIGATIONS, and welcome visitors to our OWN FARM, which is fully equipped with "ECLIPSE" Houses. All we ask is that you should inspect them at our nearest customer's address (which will be sent you on application). This will suffice to convince you of the superiority of the "ECLIPSE."

NOT BUILT TO A PRICE, BUT AS A POULTRY HOUSE.

Fullest particulars from the maker—

HERBERT W. MARTIN, PERIVALE POULTRY FARM & APPLIANCE WORKS,
EAST HARLING, —————— NORFOLK.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, FEBRUARY 10th, 1926.

Editorial.

SOME EXPERIMENTS—LEG WEAKNESS.

We have received the following letter from a Cheshire correspondent, and we feel it may be helpful to some of our readers if comment is made on it here :—

> "Dear Sir,—Again we come to the hatching season, and with it all its troubles. I would like to know if you are going to make as many experiments as possible on the S.P.B.A. Experimental Farm, with regard to leg weakness in chickens. My first chicks were hatched under a hen on December 14th, 1925. These eggs were very badly chilled on the 20th day; however, nine out of the twelve chipped and seven came out, all good, strong, healthy chicks to look at them. There are two alive now, both wobbling about as if they were drunk. On December 21st a small incubator hatched out a bad hatch, but the chicks that did live after the second day were all strong and healthy. These I also put with a good broody hen ; she has mothered them well. One very small chick died during the second week, but all the others were doing very well, but during the third week and up to now, in the fourth week, a number of the chicks have developed leg weakness, with wings drooping and ruffled plumage, etc. I have studied this trouble very carefully, and there seems to be no cure on my farm, although I have tried various suggestions from correspondence in 'Eggs.' I have the trouble **every year,** and especially with chicks **hatched before March.** Last year a friend hatched chicks out in January, reared with the same brooders, etc., and fed similarly to me ; my chicks were hatched out February 9th, and out of 80-odd chicks I think I reared about twelve. My friend only lost a very small percentage. I am beginning to wonder if this leg weakness is hereditary. I also think that chicks from some hens will thrive, while others will invariably die, therefore the stock has something to do with it ; also weather conditions—i.e., lack of sun, and not being able to run out early in the year. I should very much like to know if there are any other readers who have this trouble with leg weakness **every year,** no matters what precautions and preventive measures are taken.
>
> I should also like to know if some of your members with various-sized flocks, from a few hundred to a few thousand birds, could give me their hatching percentages, and also their rearing percentages. I will candidly say that I think my own for last year are very bad—they both, hatching and rearing, average about 50 per cent., which means for every pullet I rear I have to use eight eggs in the incubator. Could you possibly test some of my eggs from all pens at the S.P.B.A. farm, and perhaps there are other members who would like to do the same—that is, to hatch and rear as far as possible and see if the same things happen on your farm? The breeds I keep are R.I. Reds, Light Sussex, White Wyandottes, and a very few W. Leghorns out last year, as I consider light breeds are not an economical proposition. I should like to see V. J. Youen's returns from R.I. Reds and Leghorns in the second year."

In the first place, it will be advisable to state definitely that it will be impossible to follow the suggestions made in the letter, and test the eggs and stock of members on the Experimental Farm. No experiments with regard to leg weakness can be made at this early stage of the farm's existence. What we shall be able to attempt this year will be on a very small scale. We must take care not to allow ourselves to be swamped before we start.

To turn to the first part of the letter, it is obvious that the chicks, of which only two remain, died not from leg weakness but from chill. The "wobbling" was only a symptom of general weakness, and there is every reason to believe that the second lot to which the writer refers—hatched in the incubator—were also diseased, and the leg weakness again was but a symptom of general weakness common with chicks in a debilitated condition. If the writer will forgive our saying so, the impression his letter gives is, that there is something radically wrong with his management—possibly the breeding stock is lacking in vigour. The leg weakness which has been such a problem for so many year is not hereditary. It is quite true that the chicks bred from some hens will not thrive just as some hens will lay but a small percentage of hatchable eggs. These are facts, and all breeders of pedigree stock are aware of it.

We have known for years that leg weakness is more prevalent in the early months of the year than later in the spring, and that it was more prevalent in dull, sunless springs than in bright, sunny ones, but it is probable that we have only during the last twelve months arrived at what seems to be the true cause. It has been found that the addition of two per cent. cod liver oil to the mash will not only prevent, but will cure leg weakness. This has been attributed to the fact that cod liver oil is rich in the Vitamin Fat Soluble A, but a truer explanation may possibly be in that it assists in the better assimilation of the calcium salts.

How many times, in our attempt to solve the problem, has attention been drawn to the immunity of chicks reared on Mother Earth, and to the speedy recovery of those which have had free access to the soil? This has been attributed to the moisture in the earth, to some mineral which the chicks have found there, and to various other causes, but we are probably nearer the truth now than at any other time. The leg weakness which has been such a problem for so many years is a ricketty condition, induced, not by a deficiency in the diet, but by an inability to assimilate the calcium salts, due to unsuitable atmospheric conditions; and it has now been discovered that certain foods—cod liver oil is the best example—will assist in the proper assimilation of the calcium salts, and so prevent leg weakness. If, in addition to this, we learn the importance of the ultra-violet rays, leg weakness should not in the future continue to cause serious apprehensions to poultry-keepers.

Our correspondent remarks on his bad hatching results. There must be something radically wrong which necessitates the incubation of eight eggs to rear one pullet to maturity. It is impossible to help him much by correspondence, it would appear that the whole proposition wants entirely overhauling.

BOARD OF AGRICULTURE FOR SCOTLAND.

EGG-LAYING TEST, 1925-26.

Egg Production of Leading Pens at end of Third Period—6th January, 1926.

Figures are Total Eggs and Points to date.

Section 1. White Leghorns.—J. B. V. and W. Cummings, Penicuik, 256, 252; J. Prentice, Uddingston, 268, 242; R. Paterson, Denny, 218, 216.

Section 2. White Wyandottes.—Lady V. Astor, Meikleour, 301, 271; A. Thomson, Avonbridge, 261, 259.

Section 3. Rhode Island Reds.—Mrs. M. Logan, West Kilbride, 238, 238; T and C. Hamilton, Loanhead, 213, 213.

Section 4. Non-Sitters other than White Leghorns.—J. Huntly and Son, Coldstream, 254, 244; White Heather P.F., Tullibody, 198, 192.

Section 5. Sitters other than in Sections 2 and 3.—The Misses Davidson and Chisholm, Gollanfield, 337, 325; Miss Harrison Bell, Welwyn, 271, 270

Section 6. Ducks.—G. H. Simmons, Brimscombe, Glos., 138, 86; O. C. Brown, Scunthorpe, Lincs., 105, 75.

The Challenge Cup, presented by the Scientific Poultry Breeders' Association, for the best score during the first three periods of the test, has been won by Pen 97 (Light Sussex), owned by the Misses Davidson and Chisholm, Golanfield, Inverness.

Modern Poultry Feeding.

By TOM NEWMAN.

COLOUR OF YOLK.

At the Marketing Conference on January 27th a great deal more was said about the size of egg than the quality, which is probably of greater importance, but at last it was mentioned, and particularly the colour and density of the yolk. Mr. Edward Brown told the conference that in Petaluma, owing to the very intensive methods practised, the yolk of the egg has become so light in colour as to render them almost unsaleable. Very frequently I receive letters complaining of pale yolks, and asking what can be done to improve matters. The difficulty is not insoluble. With some individuals it is constitutional, but these cases are rare, and it will be generally found that matters can be easily put right by a little attention to the feeding. I have seen wheat condemned as a poultry food by a certain writer because it "caused pale yolks." This is not correct, but when wheat is fed exclusively as the grain food, and there is a deficiency of green food, you will get pale yolks because of the deficiency of colouring matter. There would be the same effect if you used white maize, oats, or dari. Yellow maize will not only give you a rich coloured yolk, but one of greater density, but there is rarely any trouble in this connection if there is a plentiful supply of fresh green food. It would be quite easy to feed a fowl so that it would an egg with a perfectly white yolk.

CHICKS AND GRAIN FEED.

One of our Suffolk members complains she is losing a number of chicks, and is cutting down the grain feed because she finds so many crop-bound in the morning. Now lest there may be others who may do likewise under the same mistaken impression that the chicks are crop-bound, I would point out to them that this is not the case. The crops were full, but it was a case of arrested digestion caused by a diseased condition. Later I heard from our member telling me that, as I suspected, her chicks were dying from Coccidiosis. I do not mean to imply that the fact that a chick is found with a crop full of grain necessarily indicates Coccidiosis, but when it is so, and your losses are fairly heavy, it is suggestive.

LAYERS' CRAMP.

Several readers have written asking for advice as to pullets which have lost the use of their legs, and generally they have said that they have rubbed the legs with some embrocation or something of that kind, with no good results. Generally I am able to diagnose the trouble as layers' cramp. If this is taken in hand at once it is not difficult to cure, but if it is mistaken for rheumatism or similar troubles the pullet may not get over it. As a rule the sufferers are bright of eye, while the comb is a bright red, the bird is in no pain, but has lost the use of her legs, squatting about and shuffling along to feed herself. The appetite is generally fair. The best treatment is to stop all mash feeding. Give a mild dose of Epsom salts, place her in a hamper on some soft hay, and feed sparingly on oats or a little boiled rice. With this treatment she will usually get right.

Very frequently these pullets will lay a soft-shelled egg. Too stimulating a feed may cause the condition, as will the use of spices, condiments, etc. The trouble is more frequent in the flush months than at any other season of the year. If it occurs with several birds in a flock it is advisable to stop maize feeding and reduce the fish or meat meal, but when it is only the case of an individual bird it is not wise to interfere with the feeding of the whole flock.

"THE LAST HOPE."

This is the non-de-plume used to a letter published in an Irish contemporary. One can understand, when reading such nonsense, that the writer was too wise or had not the courage to append his true signature :—

> "I have proved this if fish or meat meal is fed in sufficient quantity to increase egg production it is certain death to fowls. (2) I have proved that even 10 per cent. of fish meal upsets a hen's digestive organs, and sets up liver trouble. It took several years' losses to convince me that the mortality among my fowls was entirely due to the use of fish meal, and by the time I was convinced I found that not more than 3 per cent. of my fowls survived their second year.
>
> During 1924 I got a very good brand of meat meal—still the hens dropped off. I wrote to a very well-known poultry expert who advertised advice free, and was advised to try a much advertised poultry food. I ordered a bag, only to find that I had to add four ingredients—viz., biscuit meal, clover, and Sussex ground oats."

One wondered at first what all this meant, and then came the name of a certain proprietary food. The writer disclaims any idea of advertising. I am content to leave this disclaimer to my readers ; they will know how to value it. He then goes on to speak of the delicious flavour the food imparts to the eggs, and adds that the eggs also keep longer. In addition to this, he also claims that it increases the weight of the egg, and adds that "in five days a dozen of eggs will weigh from six to eight ounces more than they will do on an ordinary ration containing biscuit, pollard and maize."

(Continued at Foot of Next Column.)

It is rather absurd perhaps to draw attention to this fulsome nonsense. Better by far treat it with the contempt it deserves, but it will be read by many inexperienced people who may be induced to believe what this inspired idiot has to say as to fish and meat meal, and of the possibility of increasing the weight of eggs at all by feeding. Unless birds had been seriously underfed this cannot be done. As to the losses being due to fish or meat meal, while no doubt a high mortality is caused by the **excessive** use of either, my readers will appreciate the absurdity of the whole letter by the writer's statement that not more than 3 per cent. of his birds survived their second year. He has over-acted his part ; had he said less we might have believed more.

Why your Hens are not Laying.

Broadcast Talk—January 29th, 1926.

By J. RHYNEHART.

The title of this talk may not appear to be a very appropriate one to you whose hens are laying satisfactorily, but even if you **are** satisfied with their present production you may find in my remarks some inspiration to spur you on to greater effort—inspiration perhaps in the matter of securing an even more satisfactory egg yield, or, in what is equally important, reducing the present cost of production. There are various definite causes why hens have not yet opened their laying account, but in the majority of cases these causes can be traced without difficulty. Nature has endowed the hen, like all other birds, with the instinct to lay in spring and to rest during the cold winter months. The poet has immortalised the thoughts of the young man in spring ; the hen has similar inclinations at that period. Any old hen, managed in any old way, will lay in April and May, but to get eggs even then she has to be kept and fed throughout the whole year, and the cost of doing so is in nine cases out of ten far greater than the value of the eggs she produces. Egg prices are low in late spring and early summer, and they are low because every "dud" hen in the country is laying at that time. This is why the hens which do not lay in winter are usually a dead loss, and the sooner you realise this fact the better.

The production of eggs in winter is not a simple matter ; it requires considerable thought and intelligent anticipation on the part of the poultry-keeper, not alone during the winter months, but throughout the whole year. Why? One reason is because the gentle art of deception must be practised to a marked degree ; the conditions must be such as to lead the hen to believe that the normal period for egg laying has arrived; she must be duped by environment and by management.

We must, accordingly, consider environment as one of the essentials for winter egg production. Environment includes the conditions under which the birds are housed, the condition of the house itself, the position of the house and run, and the system by which the birds are managed—whether turned out in frost and cold or allowed to remain in the house on such days to scratch and feed. This matter of housing is one of the most important items in the whole process of securing winter eggs, but, unfortunately, it is one that seldom gets sufficient attention. To deceive the hen successfully the house must be built and placed so as to be well lighted even during the darkest day in winter. The house for the winter layer must, accordingly, be provided with ample window space, and if the interior is limewashed periodically more brightness is secured as well as improved sanitation. The house must be dry and the floor must be well bedded with dry litter; this is highly important. Exercise is one of the chief necessities in the production of eggs in winter, and this can best be induced by scattering the grain in the floor litter in the morning, thus requiring the hens to scratch for their breakfast. A roomy, well-lighted, draught-free, dry and well-littered house is therefore your first essential, and if you do not provide such do not hope for eggs in winter. Cold, draughty houses are an abomination. Do not follow the lead of the dear old lady who, to ensure plenty of fresh air for her hens, housed them during the winter in an open-fronted house to which she went daily for the expected eggs, but, like Old Mother Hubbard, she was disappointed. Fresh air is essential in any poultry house, but it must be secured without draught, and leaving the front of the house open is not the way to ventilate a poultry house during the winter.

Breed and Strain.—If your birds have not the inherent ability to lay in winter, they will not do so no matter how well you practise the art of deception. The question of breed is the next consideration, and it is important chiefly because it is only in the case of certain breeds that the laying capabilities have, by careful selection and breeding, been increased and intensified. More important still than the breed is the strain, because it is possible, even in the case of a breed which is noted for egg production, to get birds from a bad laying strain of that breed. It is possible to build up a laying strain with many breeds, but it is only in the case of comparatively few breeds that this has so far been done. Good laying strains of White Wyandotte, Rhode Island Red and Light Sussex of the heavier breeds, White Leghorn, Ancona, Black Leghorn, from amongst the light breeds, are fairly plentiful. If your flock consists of mongrels do not expect eggs in winter. You must get a good winter-laying strain of a suitable breed before you can hope to get 4d. eggs.

Even with good laying strains every pullet you rear will not be a good layer, so careful culling will always be necessary. I cannot in the time at my disposal go into details regarding this important item of management. I can merely indicate the natural disposition of the good layer. There is as much difference in the behaviour of individual hens as there is between individuals of the human race. The heavy laying hen is invariably docile, and does not object to being handled. She will rest quietly in your hands and sing contentedly all the time. The poor layer is usually noisy, wild and easily frightened. The good hen is always busy and contented. She is first off the roost in the morning and last on at night. She picks few quarrels, has no desire to join a labour union, to go on strike, or to demand an eight-hour day. Her work begins at daybreak, is continued cheerfully throughout the day, and does not end until dusk.

(To be Continued.)

THE YORKSHIRE FEDERATION LAYING TEST, LTD.

SECOND INTERNATIONAL EGG-LAYING TEST, 1925-26.

This test, which began on the 20th October, 1925, will extend until the 20th September, 1926. For the purpose of issuing records and reports to competitors, this period will be divided into twelve lunar months.

Third Report—Period, 20th October, 1925, to 11th January, 1926.

The pens of birds, and single birds, leading at present, with their records and with the names of the cups for they are competing, are given below.

For the "Daily Dispatch" Gold Challenge Cup for the Pen in Classes A. or B. which produces the highest average per bird.—Sutton and Sons, Preston (W.W.), 17s. 2d.; J. H. and W. Brayshaw, Cross Roads (W.W.), 14s 5d.; R. Rodwell, Nelson (B.L.), 14s.

The "Miss Delaney" Silver Challenge Cup for the Best Bird in the Test and the "Daily Dispatch" Prizes of 12 Guineas, 7 Guineas, and 5 Guineas for the Three Best Birds in the Test.—Miss Mawson, Adel (Bf. Rk.), 66 eggs; Dr J. E. Helm, Waterfoot, Lancs (W.W.), 65, G H. Rayner, Grantham (W.W.), 58.

The "Mrs Clay" Silver Challenge Cup for Class A., Section 1, White Wyandottes.—Dr J. E. Helm, Waterfoot, Lancs., 484 eggs; A. Snowdon, Pool, 446; Mrs. Clay, M.B.E., Long Preston, 300.

The "Tom Barron" Silver Challenge Cup for Class A., Section 2 White Leghorns.—R. Rodwell, Nelson, 331 eggs; Tom Barron, Catforth, 290; Lord Dewar, East Grinstead, 304.

The "Sir Donald Horsfall" Silver Challenge Cup for Class A., Section 3 A.O.V., Light or Heavy.—S. Street-Porter, Ely, Cambs. (Anc.), 285 eggs; W. M. Golden, Leire, Rugby (R.I.R.), 236; Tom Barron, Catforth (R.I.R.), 221.

The "Frank Snowden" Silver Challenge Cup for Class B., Section 4, White Leghorns.—R. H. Fryers, Bradley, Keighley, 280 eggs; G. W. Sutcliffe, Hebden Bridge, 259; Lieut.-Colonel Eden, Cranswick, 250

The "Allen Bros." Silver Challenge Cup for Class B., Section 5, Black Leghorns.—R. Rodwell, Nelson, 295 eggs; W. Sharp, Bell Busk, 153; The Late Colonel Spence Kirklevington, 138.

The "Jack Wrennall" Silver Challenge Cup for Class B., Section 6. White Wyandottes.—Sutton and Sons, Preston, 399 eggs; J. P. and W Brayshaw, Cross Roads, 324; W. Beattie, Rotherstthorpe, 256.

The "Fred Simpson" Silver Challenge Cup for Class B., Section 7 Rhode Island Reds.—Miss Maddison, Dame Hill, 253; D. E. Kitchin, Easton, 240; R. Rodwell, Nelson, 264.

The Will Hamnett" Silver Challenge Cup for Class B., Section 8. A.O.V. Light or Heavy.—S. Wigglesworth, Farsley (Bf. Rks.), 256 eggs; J. W. Towler, Farsley (Bf. Rks.), 268; A. White, Malpas (L.S.), 247.

The "Yorkshire Federation" Silver Challenge Cup for Class C., Section 9. Any Variety, Light.—Mrs. Hawksworth, Pool (W.L.), 57 eggs; S Hartley, Haworth (W.L.), 54; C. Sturdy, Harewood (Bl. L.), 52

The "Percy Wainwright" Silver Challenge Cup for Class C., Section 10, any Variety, Heavy.—Miss Mawson, Adel (Bf. Rk.), 66 eggs, Mrs. Hawkesworth, Pool (W.W.), 68; S Hartley, Haworth (W W.), 71.

The "G R. Poole" Silver Challenge Cup for the Best Pen any Colour Orpingtons, Australorps, or Rocks.—S. Wigglesworth, Farsley (Bf. Rks.), 256 eggs; J. W Towler, Farsley (Bf. Rks.), 268.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

" BODIES " for post-mortem examination should be sent to **Major C G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.**

Bodies should be packed and sent by post immediately after death. marked for immediate delivery. The fee is 5s. for a reply by post The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership **(NOT from Major Saunders).**

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

H. L. (Elham) has 200 White Leghorns and R.I. Red pullets, hatched in February, March and April. These now average 80 eggs per day, but quite 50 per cent. of them are under 2 ozs. in weight. He is feeding the following dry mash:—Alfalfa meal 5 lbs., bran 5 lbs., sharps 20 lbs., maize meal 10 lbs., ground oats 5 lbs., and fish meal 5 lbs.; the grain ration, two ounces per head per day. For the last few months he has fed kibbled maize. He is wondering whether the quality of the foods is at fault, and encloses samples, and wishes advice as to the cause of the small egg. The sample of sharps sent is a very poor one, and considering there is a good percentage of this in the mash it may be that which is to some extent the cause of the small egg; but I am not sure that this is the whole cause. My correspondent does not tell me when these pullets began to lay, but probably some of them in August of last year; and also, as to the question of the small egg factor, whether this is inherited or not. In answer to his question as to whether meat and bone meal instead of fish meal would increase the size of egg, I should say decidedly, No. As the birds are in good condition, it would seem that the small egg factor is inherited, and there will be a gradual improvement. Possibly some of the pullets were late in starting to lay, and some started to lay early. That is the only explanation I can give. I do not think that the feeding in this case has influenced size of egg.

" Mystify " (Watford) sends me two samples of mash, made up to my formula, about which he asks my opinion. No. 1 he has been using, and bought at the rate of 19s. 6d. per cwt.; No. 2 he can buy at the rate of 11s. 6d. per cwt. He is buying in half-cwt. lots. If he bought one cwt. it would last him six weeks—would that be too long to keep it? Further, he asks for advice concerning nine pullets which in December laid 158 eggs. After Christmas they started laying quite a number of soft-shelled and shell-less eggs, and this month the yield has dropped to 78, and they are now only eating about half the usual quantity of mash. They appear in good health. They have a liberal supply of fresh green food and plenty of oyster shell. The mash hoppers are open all day.—The No. 1 mash at 19s. 6d. per cwt. is excellent quality, but the price is at least 5s. per cwt. too high; No. 2 is not so good, but is really excellent value for the money. If the corn merchant who supplied the No. 1 mash sold any quantity of it, he must have made a small fortune. With regard to the pullets and the shell-less eggs, it would appear to me these are naturally prolific layers, and the conditions under which they were kept proved a little too forcing. The best plan would be to feed no maize as the grain feed, but to give oats and wheat in equal parts. The quantity of mash they are consuming is much less, because the birds are not laying so heavily. The leg weakness of which he writes was layers' cramp. The birds should be removed from the pen, placed in a hamper on soft hay and fed sparingly. A mild dose of Epsom salts would help. No mash or animal food should be given.

W. M. D. (Edinburgh) asks: (1) What grain should he feed with the S.P.B.A. Breeders' mash? The best grain would be three parts wheat, two parts kibbled maize, and one oats. (2) Whether it is best to house in 50 or 100 lots for a one-man poultry farm? In my opinion 100 is the most economical unit, whether for a one-man poultry farm or for the large commercial egg farm. (3) He is mating five 1925 Black Leghorn cockerels to sixteen 1925 Black Leghorn pullets and three 1925 R.I. Red cockerels to thirty-three 1925 R.I. Red pullets. The above are all selected birds, and do I approve of same?—If the pullets are well matured and well developed, and the cockerels are not under ten months old, there is no objection to such a mating. (4) He is lighting up these birds between 9 and 9.30 p.m. Do I approve of this, seeing he is breeding from them now? No, I do not approve of this. He is lighting just at the time he should begin to leave off lighting. (5) How long will he have to keep the above pens mated before collecting eggs for incubation? He may get fertile eggs within 48 hours of the birds being mated, but that is a different matter from collecting eggs for the incubator, as the eggs from every hen will not be fertile. He will be perfectly safe within seven days. (6) Can he buy through the S.P.B.A. 1 cwt. Chick No. 1 Feed along with 5 cwt. of Dry Chick Mash? Yes. (7) A friend of his wishes to know if he could go for chicken, laying and breeders' dry mash and grains by motor, and so save rail carriage. I regret that at present this is not possible for reasons which I have already given. (8) He has built a lean-to incubator house, double-lined and packed between with sawdust, 9 ft. x 8 ft. deep, 7 ft. high at front and 5 ft. at back. Would I let him know what ventilation he should have? He has 3 ft. along the top meantime, but his incubators are not working yet. I do not like this type of incubator house at all. Presumably the ventilation is in front, but as it is only 9 ft. x 8 ft. a few holes drilled at the back would be sufficient. Yes, the size of the house would take two 250-egg incubators.

E. M. (Rochford) asks what ducks lay green eggs. Nearly all ducks lay green eggs except Khaki-Campbells, Buff Orpingtons, and the Indian Runner, and even some strains of these lay green eggs. (2) How to test for clears? As she has not tested before, my correspondent had better get a new-laid egg from a pen which has not been mated and compare it with one from a fertile pen. The best plan is to cut a hole about the size of the egg in a piece of cardboard and hold this before a lamp in a dark room. (3) Why do I always advise kibbled maize and not whole maize? Because kibbled maize is much more readily digested than whole maize, and is far more economical to feed than whole maize on that account. (4) She is very indignant because she recently saw in a shop window " Equal to New Laid, 2s. per dozen." This was at the time new laid were 3s. 6d. per dozen. She had reason to be indignant, and I think the retailers were pressing the foreign egg upon the public because there was a scarcity of English new-laid eggs. The fact that her birds are on free range should not affect the question as to whether they should be given kibbled or whole maize. Kibbled maize is much to be preferred to whole.

G. M. B. (Broadway) writes: " Will you kindly tell me what is clover meal? Is it the residue from the shelling of clover seed? (2) Will clover meal take the place of alfalfa meal? (3) In ' Eggs,' January 20th, ' B.W.D. and Feeding,' you advise not to feed infertile eggs from incubators. . . . Would not the boiling of eggs for fifteen minutes make them sterile and safe to feed to chicks?"—I must first thank her for the kind appreciation of "Eggs," and the work of the S.P.B.A. No, clover meal is not the residue from the shelling of clover seed. This is of no value whatever; it is but the product of an exhausted plant. Let me compare it with the French or Scarlet Runner Bean. When the pod is young and in its green state we eat it and it makes a delicious dish, but when it is allowed to grow old it becomes very leathery and indigestible. The analysis would be the same in both cases, except that in its green state it contains slightly more moisture. Good clover meal will take the place of alfalfa meal, but the value lies in the leaf, and therefore the plant should be cut as early as possible, and not when it is in full flower. With regard to "B.W.D. and Feeding," it is quite possible the boiling for fifteen minutes would make the eggs sterile and fit to feed to chicks, but a hard-boiled egg is not a suitable feed for young chicks. It is very indigestible, and further, to give this to a chick that has not absorbed the yolk of the egg from which it is hatched is a fatal mistake.

N. C. (Co. Down) writes of his pullets which are laying much below the average, and he is of opinion that they are not in good enough condition, and that the food is at fault. Samples have been sent. The meals are all satisfactory with the exception of the Sussex ground oats, which are really a joke, and the pollard is too poor. The ground oats remind one more of oat dust feed than a proper sample of Sussex ground oats. The sample of middlings is almost a second-grade flour. Nothing has been said about the grain feed, and I am wondering whether the birds are getting a sufficient quantity of grain as the last feed I find so many failures, particularly at this season of the year, are due to an insufficient quantity of grain. It is such a mistake to limit it to two ounces, and in many cases only 1½ozs. is given. These are the only suggestions I can make. The mash in itself is well balanced, and should give good results. Of course there are other factors which may influence non-production of eggs besides the feeding, and what is so seldom realised is the effect of poor rearing on the production of the pullet at this season of the year.

J. L. B. (Norfolk) send sample of dry chick feed. This consists of a very high percentage of broken rice, and an equally high percentage of millet, which is very indigestible, maize grits, and a very small percentage of canary seed. I can trace no wheat or groats. It is a very poor mixture and quite unsuitable to feed to chicks.

J. L. B. (Barwick) writes that he has a small flock of White Wyandotte pullets which have put up some most excellent records during the winter months, but he is troubled with the fact that his pullets—almost all of them—have green eyes, and he wishes to know if we can inform him if this is a serious defect, because if it is he will not bother trapping them, as his idea is to establish a flock which will be in every respect typical of the breed. He notices that one breeder offers green-eyed birds at greatly reduced prices.—From the point of view of the utility breeder I should not regard this as a serious defect, although if my correspondent intends to exhibit at utility shows it may penalise him heavily with some judges. Many breeders contend that these green-eyed birds are the better layers, but this, I need hardly say, is a mistaken idea, and the explanation is simple. We get these green eyes also in Leghorns and in R.I. Reds. The standard gives eye colour as bright bay. If I were breeding utility White Wyandottes, and had such records as those submitted to me by my correspondent, I would not scrap my birds because they had green eyes. He might improve this by selecting those birds with eyes of the correct colour and mating them to a cockerel, and so breed out this defect.

A. L. F. (Chippenham asks for tabloids to be sent to him which he can use as a preventive for B.W.D. In reply to his question the S.P.B.A. has no tabloids to offer, and there are none which will prevent B.W.D. without doing injury to the chick. These tabloids are generally made of bi-chloride of mercury, which is a cumulative poison. If it does prevent B.W.D. it has a very bad effect upon the chicks, which, as a rule, look anaemic and are stunted in growth.

POST-MORTEMS.

K. H. C. The post-mortem examination of the R.I.R. Cock showed that he was affected with cirrhosis of the liver and degeneration of the kidneys. Causes are not always traceable, but prolonged feeding on stimulating foods is said to be conducive to these conditions

P. D. H. J. The post-mortem examination of the chicks showed them to be affected with Aspergillosis of the lungs. This fungus, which grows on damp materials of any description, and especially on litter and foodstuffs, produces spores or seeds which may be inhaled by the chicks when scratching, etc., and these spores on gaining the lungs proceed to grow, producing the network of the original fungus, which finding its way into the lung tissues produces pneumonia. Treatment is of very little service for birds already affected, although a tonic has a useful effect in fortifying healthy birds against the results of infection; such a tonic may be administered by adding 40 grains of citrate of quinine and iron to every gallon of the drinking water. Mouldy and damp litter and food should be removed and destroyed by burning, and the houses, etc., and equipment most thoroughly disinfected.

J. E. H. R. The post-mortem examination of the chicks showed them to be affected with rickets, with the usual lesions of imperfect bone formation and digestive disturbances, and mal-nutrition. Rickets is one of the so-called deficiency diseases, brought about by a combination of causes working together, the actual condition being imperfect assimilation of lime salts for bone formation coupled with a general systemic debility. There is an undoubted hereditary tendency to rickets, and unsanitary environment and faulty feeding predispose towards it, but there is something else which has not yet been discovered that appears to be the deciding factor for its incidence. Although the actual cause it not satisfactorily worked out, rickets may to a large extent be prevented, and more or less successfully treated by adding 2 per cent. of cod liver oil to the mash and the provision of a plentiful supply of green food, exercise and sunlight, and by providing minerals in an assimilable form by adding a small percentage of fish meal to the ration, or if that is already included, sterilised bone flour meal. A tonic is also useful to promote appetite and digestion, and is easily provided by adding 40 grains of citrate of iron and quinine to every gallon of the drinking water for a week or so.

MEMBERSHIP OF THE S.P.B A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

WHAT'S IN A NAME?

Mr. Bacon's letter proposing the changing of the name of the S.P.B.A. has caused a little fluttering in the nest, but I must say so far the support accorded the proposal has been negligible, while the opposition is almost overwhelming.

May I digress a little for a moment, and answer several correspondents in reference to an interview which appeared in the advertisement columns of "Eggs" last week. The Mr. Newman mentioned in this interview is not myself. There is no need for me to say any more. I should not have made any reference to it, but for the fact that I have received so many letters asking me to explain views which were not my own.

Well, everyone is agreed that we should not change our title, and Mr. Maurice Brady writes to say that he heard a president of one of the other societies say that a title is worth a lot of money, and that he personally is much opposed to the change, as there is really something very high-sounding about it, and our ever-increasing membership shows that we either succeed in attracting members **because** of it or **in spite** of it.

Now I will digress again to say that at the present moment the number of fully paid-up members of the S.P.B.A. is higher than at any time in its history, and the number of new members elected during January (299) was more than in any corresponding month since the S.P.B.A. came into being.

To return to Mr. Brady's letter. He says, "As an alternative, why not impress upon our members the necessity of acting up to the title, and make more advancement?" Please take this sentence as being impressive.

Another matter he would like to bring before us is instances he has noticed of the reduction of egg supply when an exceptional climatic change is taking place. He writes :—

> "Let me try and give you a clear recent example of what I mean. From my little flock for some days past I have been receiving 17 to 21 eggs daily until the 27th ult., when I gathered only nine, following the next day with 13, and then 15, to 17 since. There passed over this district on the afternoon and evening of the 26th ult. a very severe magnetic storm, which, in my opinion, from previous observations, I attribute as the cause of the low egg yield. I shall be glad to know of any other members who have ever noticed anything in this direction, and to have your personal opinion as to what you think of my theory."

Now for my personal opinion. I have no doubt that Mr. Brady's theory is a correct one. Repeatedly have I noticed that after a heavy gale there has been a decided drop in egg production for the next day or two. We had a very severe magnetic storm some two or three years ago in Sussex, and, although I cannot speak from my personal experience at that time, the same question was put to me then as Mr. Brady has put now, by two or three readers of "Eggs" in the district. However, I think these are matters which are beyond our control. Just at present I am more particularly interested in the changes of temperature affecting egg production, and I do believe that over this we can exercise some control. At any rate, I hope we shall be able to make experiments in that direction on the S.P.B.A. farm next winter.

HOUSING.

A Hampshire correspondent writes :—

> "Housing is a question which has been much discussed of late in 'Eggs.' My own housing scheme would, I fear, make some of our members and readers shudder!
>
> I am all for the open-fronted house. The roof, the back and the two ends are draught-proof and rain-proof, but I do not mind how much air space there may be in the front **above the level of the birds' heads when roosting.** I think these last few months have been decidedly trying, owing to the abnormal amount of wet and the sudden changes of temperature, but the egg output has been quite satisfactory. Last week, and the week before, we had a good deal of snow—that is, for the South of England—and quite abnormal frosts, yet the birds seemed quite unaffected thereby.
>
> For some months past I have fed dry mash all day, and unlimited corn at night, but no corn in the morning. This seems to me the most satisfactory plan I have ever tried, and it is certainly one that minimises labour. I use your layers' mash, and the corn is three of maize and one of wheat."

It is not a question of feeding to which I refer here, but rather one of this housing problem, and I am totally unable to agree with my correspondent, although he has his experience to back his theory and even to prove it. In my view we should get far better results with a warmer house, which need not be less well ventilated. We heard so much about the open-fronted house some years ago as a preventive of roup, and my experience has been that the average open-fronted house—not that described by my correspondent—has been more conducive to colds and roup than even the old ill-ventilated box of years ago. Fresh air may be beneficial, in fact we know it is, but you do not want it served up in icy blasts.

ON EGGS IN TRANSIT.

A Sussex correspondent has sent me particulars of a transaction he has had with Messrs. Symons Brothers, of 827, Romford Road, Manor Park. I am only mentioning it here because it is an instance of such things that do happen to the poor producer in the egg trade.

My correspondent sent on the 12th January 720 eggs to the firm in question. As no reply was forthcoming he wrote to them, and on the 27th January he received the following statement :—

January 27th, 1926.

Sold for Mr ——————, by

SYMONS BROS.,

Wholesale and Retail Fishmongers, Poulterers, Rabbit Salesmen and English and Irish Egg Merchants,

827, Romford Road, Manor Park.

6 x 0 x 0 Eggs—20/-		£6 0 0
Less 2 x 0 x 0 smashed—20/- ...	£2 0 0	
Returns—2/-	0 2 0	
		2 2 0
		£3 18 0

Dear Sir,—Herewith cheque in settlement of above. We should say boxes had been dropped in transit. We hope to hear from you again in due course. Thanking you in anticipation.—We are, yours truly,

SYMONS BROS., LTD.

(Signed) J. W. Wilson, Secretary.

The first indication that he had that the eggs had been smashed.

The remark—"We should say the box had been dropped in transit"—certainly is rather naive. It is a little surprising that Messrs. Symons Bros. did not at once wire or write to the poor producer, in view of the very high percentage of smashed eggs. Really it seems that the Marketing Conference was necessary in more respects than one.

CLITHEROE AND DISTRICT UTILITY AND FANCIERS' POULTRY SOCIETY.

Six Months' Single Bird Laying Test, 1925-26, held at Henthorn Poultry Farm. Clitheroe, under the supervision of Mr. A. W. Woodford.

Fourth Monthly Report.

In the first 12 weeks eggs over 2oz. receive 9 points, 1⅞oz. to 2ozs., 8 points; under 1⅞oz., 6 points. In the second 12 weeks, over 2ozs., 7 points; 2ozs., 6 points, under 2ozs., 4 points.

Heavy Breeds.—J. R. Jackson, Downham (W.W.), 659 pts.; P. Warren, Entwistle (R.I.R.), 629; A. Snowden, Crosshill (W.W.), 614; T. Dobson, Inglewhite (B.O.), 568; L. Infanger, Grindleton (W.W.), 555; J. H. and W. Brayshaw, Keighley (W.W.), 550; W. H. Bradshaw, Preesall (W.W.), 534; W. Boulton, Stoke-on-Trent (L.S.), 526; F. C. Tomlinson, Sleaford (L.S.), 523; J. H. Heap, Wilmslow (W.W.), 522.

Light Breeds.—Miss Greenwood, Worston (W.L.), 574 pts.; T. Bickerstaff, Clitheroe (W.L.), 491; P. Warren, Entwistle (W.L.), 466; Major Aspinall, Pendelton (W.L.), 390; T Dobson, Inglewhite (Anc.), 387; R. Beesley, Lytham (W.L.), 386; Jowett and Son, Scarborough (W.L.), 380; F. Gregson, Bolton (Anc.), 354; F. Gregson, Bolton (Anc.), 353; W. R. Porrett, Cornwall (W.L.), 353.

26 eggs not recorded. Total eggs (112 days), 5,669; 172 birds. Five birds dead.

Secretary, A. HALLOWS, 7, George Street, Clitheroe, Lancs.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

Tyreman, H. J., Foxwold, Westward Ho! North, Devon.
Warren, Mrs. L. E., 16, South Place, Surbiton, Surrey.
Duffield, Mrs. H., Ballybeen, Dundonald, Co. Down.
Casement, Mrs. A. B., Magherintemple, Ballycastle, Co. Antrim.
Cornish-Bowden, Lieut.-Col. B. K., East Knowle, Horeham Road, Sussex.
Bryant, G. E., Greenlands, near Kennells, Eastbourne.
Hutchings, Mrs. E., Manor Farm, Willington, Shipston-on-Stour.
Talbot, F. T., Lustleigh, South Devon.
Eaton, Hon. H. E. Harow Weald, Englefield Green, Surrey.
Laughton. H., 95, Stamford Street, Grantham, Lincs.
Russell, C. G., Woodside P.F., Bentley, Suffolk.
Wheeler, Major S. A. del, 1, Ashdown Terrace, Tidworth, Hants.
McDermott, Lieut.-Colonel T. H., Springfield, Inverness.
Lewis, Miss G., Mansion House, Craibstone. Bucksburn, Aberdeen
Brown J. C., Sundaywell, Dunscore, Dumfries-shire.
McArthur, Miss J. M., McArthur P.F., Burdiehouse, near Loanhead.
Guinness, Mrs. G., Dorton House, Thame, Oxon.
Thompson, E., Sawyers Farm, T. Major, Little Totham, Maldon.
Lanely. R., Mitchenors P.F., North Hill, Fareham, Hants.
Lee, W. 32, Pyenot Terrace, Cleckheaton, Yorks.
Lythall, F. H., "Carwyn," Station Road, Glenfield, near Leicester.
Barnfield, T H., 31, Howberry Road, Thornton Heath, Surrey.
Hornsby, The Hon. Mrs., Longwood, Nayland, Suffolk.
Colston, Mrs. C. B. Hill House, Totteridge, High Wycombe. Bucks.
Greening, G. 6, Ermin Street, Stratton St. Margaret, Swindon, Wilts.
Dove, D., Tower Rais, Barrhead, Renfrewshire.
Telfer, W., Cairngarth, Heads Nook Station, Carlisle.
Tyrer. C., 36. Breckfield Road South, Liverpool.
Cousins, F., 125, Sutton Street, Tue Brook, Liverpool.
Binch J. W., Bottom Buildings, Calverton, Notts.
Brown-Greaves, Mrs. M. S., Black Hall, Loxwood, Sussex.
Shanks Mrs. D., Wychbars Farm, Debden, Saffron Walden, Essex.
Blacker, Lieut.-Colonel N. V., Gagle Brook P.F., Bucknell, Bicester, Oxon.
Lindsay D., 55, Carr Street, Hebburn-on-Tyne.
Timms, F., The Cottage, Trimsaran, near Kidwelly, S. Wales.
Robertson, R., 22, Brown Street, Larkhall, Lanarkshire.
Betts, Miss F. M., Fritton Grange, Long Stratton, Norfolk.
Spence L. H., Brackmont, Leuchars, Fife.
Bacon, J. S., The Hollies, Foleshill Road, Coventry.
Tullivan A. J., 75, Arngask Road, Catford, London, S.E.6.
Rees, W. P., Pengwernuchaf, Cenarth S.O., Newcastle Emlyn.
Burrage C. C. W., Upper Bennetts, Beaconsfield, Bucks.
Dawler, T., Grand Viene, Green Street Green, near Farnborough, Kent.
Hislop, R M., Windybraes, Linlithgow.
Simmonds, E. H. H., Fairseat, Knaphill, Woking.
Hanson, C. H., Wildcroft 310, Beacon Lane, Horton Bank Top, Bradford.
Craft, Capt. H. T., The Ranch, Owermoigne, Dorchester.
Montagu, W., Vine Cottage, Swaffham, Norfolk.
Peacock, A. Harcourt-, Polteana, Duloe, S. Cornwall.
Harris E., Isle of Caldey, Tenby, S. Wales

Correspondence.

MARKETING OF EGGS.
PROPOSED REGULATIONS BY S.P.B.A.

To the Editor of "Eggs."

Dear Sir,—A similar scheme to that propounded by Mr. F. J. Hemelryk, in your issue of January 27th, is fully discussed in Chapter X. of the Ministry of Agriculture's Report—which you have recently reviewed. And, as the Minister of Agriculture seems to suggest, no such scheme is likely to succeed unless the **Retailer** as well as the **Producer** is brought into it?

A perusal of that chapter will also indicate, I think, how the scheme might be carried out without recourse to such legal weapons as "guarantees," "liquidated damages," or Arbitration Acts," the full significance of which may not, I fear, be fully appreciated by anyone except the Association's Solicitors!

There is also the question of expense. I rather think that guarantees, as well as undertakings to pay penalties, would, like the eggs themselves, have to be stamped before they could be enforced in a Court of Law.

Moreover, why should the Association undertake any responsibility in the matter?

The power to strike any member off the Register for mal-practices costs nothing to enforce, and should, I think, be sufficient.

Yours faithfully,

HUGH M. BAKER.

(It should be perfectly understood that the proposals contained in Mr. Hemelryk's letter are not official; they are not the proposals of the Council, but of Mr. Hemelryk.—Editor.)

MARKETING OF EGGS.

To the Editor of "Eggs."

Dear Sir,—I welcome Mr. Hemelryk's letter in the current issue of "Eggs" as another honest endeavour to drag the Grade A egg from the realms of theory to those of practical politics.

May I, however, suggest some amendments to one or two of his proposals :—

(1) I should have preferred that all eggs should be cleared from the farm at least twice a week. Bracknell Market, for example, sells a 2 oz. grade egg guaranteeing not more than a week old.

(2) Instead of submitting feeding formulae for approval, would it not save much correspondence if a very few broad principles were laid down, calculating to avoid pale or tainted yolks?

(3) Would not the imposition of a £5 fine for failure to return the stamp if called in necessitate an Act of Parliament?

(4) The clause making the guarantors of good character responsible in £25 each would be most unpalatable, and therefore perhaps bad policy. A personal deposit might perhaps be substituted? If complaints were received, a prosecution for breach of contract would probably be sufficient "pour encourager les autres."

(5) The necessity and cost of some advertisement should not be lost sight of.

The above remarks are written to promote healthy discussion of this important subject, and in no spirit of petty contentiousness.

I am, sir, yours faithfully,

K. M. CAVE (Major).

POULTRY HOUSING.

To the Editor of "Eggs."

Dear Mr. Newman,—I have been reading Prof. Thompson's "Poultry Housing" in "Eggs," of December 16th, and have been much interested in the formula given for calculating the first and second year egg output from the first winter trapnest records.

Unfortunately Prof. Harvey's formula is based on a four months' winter output, whereas the official S.P.B.A. winter records are for 90 consecutive days.

From a casual examination of some of the Registered Pen Records in the "Year Book," it looks as if we might take twice the 90 days' records, plus 120, as the first year's output; but there are some half-dozen factors affecting egg production, and the most disturbing one to the formula would be the rate of winter production. Where this is "fast," the year's output would fall short of the formula result. Alternatively a slow rate of winter production would make the formula result too small.

Probably Prof. Harvey's researches were made in one family of birds showing very slight variation, enabling him to get figures for his formula to four places of decimals. The ordinary commercial egg farmer would not bother about these minute fractions of an egg, and would use round figures easily remembered—e.g., the second year's output might be taken as half the first year's, plus 56. The constant quantity (55.51), however, shows that there are limits to the use of the formula. For instance, if the first year's egg yield is 100, the second year's would be—according to Prof. Harvey's formula—104.16. Also a 300-egger would not usually drop to about 200 in the second year, which is what the formula gives.

Perhaps Prof. Thompson will amplify his results on this subject in the near future.

Yours very truly,

DOUGLAS ALLPORT.

LIGHT BREEDS VERSUS HEAVY BREEDS.

To the Editor of "Eggs."

Dear Sir,—I am "butting in" on the above subject because your correspondents, Mr. Youens and Mr. Bygrave, are both wrong in their estimate of food required for R.I. Reds and White Leghorns. The amount of food required to produce a given number of eggs of same weight will be the same in both; the difference will only be in the maintenance. The R.I. Red will require approximately about 2¼ ozs. of food daily, the White Leghorn 1¾ ozs. Thus the Reds will need about 50 lbs. and the White Leghorn about 40 lbs. of food per year for maintenance. One pound of food over and above this maintenance ration will be required to produce three eggs, so that a total of 100 lbs. of food will be required by the R.I. Reds to produce 150 eggs. The White Leghorns will require 90 lbs. of food to produce the same number. Every pound of food consumed over and above this should produce three eggs. Food per bird—R.I. Reds is given at 12s. and for Leghorns 10s. These prices are too high for a commercial poultry farmer to pay. It should not exceed 10s. for R.I. Reds and 9s. for White Leghorns, so that the difference in cost of food on the 100 birds is £5, not £10. The difference in the cost of rearing pullets would not be more than 6d. each. In arriving at a profit the eggs are valued at 2s. per dozen—an exaggerated price. After marketing expenses, such as transport and commission, are deducted the price would not average more than 1s. 9d. per dozen. The profit per R.I. Red by Mr. Bygrave is 14s. each and Leghorns 12s. each—an impossible one, having regard to price of food given.

Yours faithfully,

W. HALL.

B. W. D.

To the Editor of "Eggs."

Dear Sir,—In discussions on B.W.D. many varying opinions have been expressed on the susceptibility of the progeny of infected stock, many experienced men contending that, given good conditions in rearing, it does not develop, and that the conclusion to be drawn from these facts is that the germ theory is all wrong.

I suggest that a probable solution to this problem may be found in the Report of the British Medical Society summarised in "The Times" recently (Friday, 22nd, I think), which points out that many diseases are only developed when a third factor makes its appearance, providing a suitable surrounding or environment for the development of the germs (harmless in themselves under ordinary conditions), when we get a sudden epidemic of some description.

It seems likely that research along these lines with poultry diseases will give the industry data concerning specific factors that must be avoided to prevent the development of certain diseases. I quote an instance of one already known. **Damp litter in the house develops roup.** One can readily think of others. Such facts would be of more practical use than the development of inoculation and similar antidotes.

Yours faithfully,

H. R. BROWN.

MEAT PLUS EGGS.

To the Editor of "Eggs."

While thanking Mr. Day for his courteous reply to my attack on the White Leghorn, I should also like to congratulate him on his success with this really wonderful breed of fowls.

He has, however, if he will allow me to say so, entirely missed Mr. Meekings' point, viz.: Is it IN THE FUTURE going to be a paying proposition to rely on eggs alone? To dispose of one's cockerels at 6d. or 9d., or, as Mr. Day admits, to kill them, may have been a paying proposition in the past, but it would be foolhardy in the extreme to think that with the ever narrowing margin of profit it is going to be so in the future. Mr. Day tells us that for the last fourteen years he and his colleagues have been able to keep his merciless tax gatherer at bay, but will he be equally successful in the future?

The weights of eggs Mr. Day gives us are fair, but has he told us the whole tale? What proportion of second grade eggs does he gather in?

In any case Mr. Day's birds are possibly an isolated instance, and the fairer way is to take the figures from the public tests. The stock at these tests may be regarded as the pick of the birds in this country, and last year at Bentley it will be seen that White Leghorns only returned seven first grade eggs out of eight. Wyandottes were worse, with five first grade eggs out of six, and the standard is only 2 oz. per egg, which, in my opinion, is too low.

Both records are, in my view, deplorable, but at any rate the Wyandotte breeder gets something for his cockerels.

This year's Bentley figures so far show no improvement, and at present there are only two pens, with an average of 20 eggs per bird or over, which have an absolutely clear sheet as far as second grade eggs are concerned. The birds in these pens are Light Sussex and Marsh Daisies, both dual-purpose fowls.

Mr. Day's plea that it is uneconomic to keep his birds for the third and fourth season perplexes me, but my wife's explanation is that the annual production of his formidable sprinters shews at this epoch in their career a considerable depreciation.

Surely Mr. Day knows there are other breeds of fowls which give reasonable returns.

He might read Mr. Munro-Spencer's letter on the same page of "Eggs" as his, or an even better course would be to take his Annual Register and read that through, including the advertisements.

With all respect to Mr. Day, I think he is certainly alone in the opinion, that if fowls can be bred to lay a reasonable number of eggs in their third and fourth years and furnish a fair proportion during the months August to February, it would not be a business proposition to reduce one's annual rearing charges by half and renew, say, 25 per cent. of one's flock yearly instead of 50 per cent.

In this matter I feel that I am "like a voice crying in the wilderness," but if Mr. Meekings is right, and I for one think he is, something of this kind has got to be done, and Mr. Day would be better advised to look forward to the future and not to look back on fourteen years, which included such a profitable period as the poultry industry will not see again in my time, and possibly not even in his.

FRANCIS J. HEMELRYK.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

KEIGHLEY AND DISTRICT BRANCH REPORT.

The Keighley and District Branch of S.P.B.A. held their Second Open Egg Show in the Temperance Hall, Keighley, on Wednesday, February 3rd. Miss Hillaby, Pontefract, judged the exhibits. Awards were:—**Hatching Eggs.**—Class 1 (Six White Hen Eggs): 1, J. B. Walker, Gilstead; 2 and V.H.C., Mrs. H. Wilson, Cross Roads; 3, N. Hiley, E. Morton; Res., Ed. Hodgson, Oakworth; H.C., Mrs. G. M. Barker, Cullingworth. Class 2 (Six Tinted Eggs): 1, Mrs. A. Wilson, Denholme; 2, H. Sanderson, Oakworth; 3rd, N. Hiley; Res., Clifford Smith, Keighley; V.H.C., H. Butterfield, Denholme; H.C., Mrs. G. M. Barker. Class 3 (Six Brown Hen Eggs): 1 and 2, Alf. Sawyer, Crosshills. **Commercial Eggs.**—Class 4 (Six White Hen Eggs): 1 and 2, Geo. Davey, Sutton-in-Craven; 3, S. Hartley, Haworth; Res., J. B. Walker; V.H.C., N. Hiley; H.C., Mrs. A. Wilson. Class 5 (Six Tinted Hen Eggs): 1, Mrs. A. Wilson; 2, H. Sanderson; 3, N. Hiley; Res. and V.H.C., Ed. Hodgson. Class 6 (Six Brown Hen Eggs): 1, N. Hiley; 2, S. Bancroft, Haworth; 3, J. B. Walker. Class 7 (Six Duck Eggs): 1, H. Kershaw; 2, Mrs. A. Wilson. The positions for Silver Challenge Trophy offered by the Society for most points in whole series are:—1, N. Hiley; 2, Mrs. A. Wilson; 3, Ed. Hodgson; 4 (equal), H. Kershaw, Geo. Davey, Alf. Sawyer; 5, J. B. Walker; 6, S. Hartley.

After awards had been made and eggs sold, Mr. Frank Snowden presided over a well-attended meeting, when Miss Hillaby gave an address on "Successful Poultry Keeping." The Society were again most fortunate in their choice of a lecturer. Miss Hillaby was representing the Yorkshire Federation of Poultry Societies, on whose behalf she gives free lectures to affiliated

(Continued at Foot of Column on Next Page).

London Market Advice Table.

By **A. V. CLARKSON.**

FEBRUARY, 1926.

Last month I gave a general survey of the question of marketing, and tried to answer most producers' questions before they asked them, finishing up with the remark, "IF IN ANY DOUBT EITHER WRITE OR CALL AND SEE YOUR SALESMAN." Seeing that, at the time of writing, February 3rd, the demand has not yet commenced for the fresh produce, I shall have to confine my remarks to another general survey of the various commodities.

Spring Chicken.—Producers who have Spring Chicken should enquire before they send them, because until the demand starts it is foolish to send these birds (or for that matter any birds) and "chance it." Whilst waiting, they should devote a certain proportion of their time to carefully handling their birds and studying their condition. The reason for this is, that a good Spring Chicken makes a very good price, but a bad Spring Chicken is almost unsaleable. From these facts the producer will readily see that it is foolish to even pay carriage on birds which have "gone light" or have any external or internal diseases. These facts can only be ascertained by handling, and at the same time it will enable the producer to cull any birds from the fattening pen which will never do any good either in or out of it. When sending chicken alive to London, unless you have a very small consignment to make, be certain to grade your birds for size. There are few things more distressing to a salesman than to have to sell a dozen birds which range from, say, 4 lbs. down to 1½ lbs. Never send birds alive to London which weigh less than 1½ lbs. each. These birds neither travel well, nor do they "pick out" a decent colour. Always remember when making your calculations that a chicken loses approximately 10 per cent. between live and dead weight. A hen is invariably sold alive, so that you should be paid for the weight you sent less a very small allowance for natural wastage—but, of course, nowhere in the region of 10 per cent.

Hens.—When sending your hens always grade as well as possible, both for size and colour. If you are sending White Leghorn hens, and have any which scale over 4 lbs., be sure and send these separately, and notify your salesman IN ADVANCE. The reason for this is that a 4 lbs. Leghorn will be sold at so much per pound, whereas the average Leghorn is sold at so much each.

Petit Poussin.—A few weeks ago there was, in "Eggs," a detailed article regarding the preparation of Poussin. The demand for Poussin commences at the same time as the demand for Spring

Chicken, and the only advice I can give you is to be sure and write up to your salesman before you send.

Eggs.—On the showing of the last two weeks, the producer is probably saying, "What is the matter with the London Market?" All reports tend to show that where eggs have been making 21/- and 22/- per long hundred in London they have been making 25/- and even more in the country markets. The reason for this is that Continental Eggs, which were expected in large quantities, have not materialised. This is presumably due to the impossibility of shipping them. The demand for eggs never seems to cease, and it will be readily appreciated that with the demand still existing and the supply more than cut in half, the producer should be reaping at this time. This is no slur on the London Market, but it is an eye-opener to the producer that there is still scope to make money out of eggs. No doubt the reader has read the remarks made at the Marketing Conference Club by the N.P.C. If the producer will do everything in his power to market his eggs in proper condition and in a proper manner, he could create his own demand in London. With regard to the question of stamping the eggs, it would seem that this must not be done. The Government definitely stated yesterday that they were going to make the foreigner stamp his produce. This is a plain enough hint to the home producer NOT TO STAMP HIS EGGS. Nice clean eggs packed in nice clean boxes are in great demand, but dirty eggs packed in boxes about fifty years old with filthy divisions are about as hard to dispose of as spots for rocking horses.

By the time next month's Market Advice Table appears, I shall be able to give detailed instructions regarding sizes, etc., but in the interval I wish to impress upon you the necessity of ASKING FIRST AND SENDING AFTERWARDS.

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societies. She is a practical poultry-keeper, and claims to be an optimist with regard to the poultry industry. Although money is scarce and production greatly increased, egg prices are maintained. The chief things which go towards successful poultry-keeping are observation, personality, capability, strictness to business and the love of the work. Climatic conditions should be studied as to suitable breeds to keep. Stock birds should be obtained from breeders of reliable strains, whose reputation will bear investigation. Trapnests are the only true way of finding out the best birds to breed from. Number and size of egg is imperative, combined with good condition at the end of a bird's first laying season. Rearing, the lecturer went on to say, demands patience, but is responsible for the winter egg. Good housing is necessary, with every comfort for the birds, proper ventilation, plenty of light, food of the best quality, and an abundance of clean water and fresh green food. At the conclusion of the address many questions were asked, to which Miss Hillaby replied, and gave her experience of feeding cockerels (R.I. Reds) for the table. She claimed to have made a clear profit of 3/3 per bird on the cockerels reared during the last season.

Mr. Clay proposed a vote of thanks to Miss Hillaby. Mr. H. Walker seconded the proposal, which was carried unanimously.

Miss Hillaby replied that she was most gratified with the vote of thanks. She felt it was sincere, and hoped to come to Keighley again.

A. WILSON, Hon. Secretary.

THE LANCASHIRE FEDERATION OF UTILITY POULTRY SOCIETIES.

Minutes of the Council Meeting held in the Master Builders' Rooms, Mount Street, Preston, on Saturday, January 30th, 1926. Present:—Mr. S. Marson (President), Dr. J. E. Helm (Chairman), who occupied the chair, Mr. J. Whalley, Mr. W. Hamnett, Messrs. J. Wrennall, T. Edmundson, W. Martindale, D. Braithwaite, F. Thompson, J. Hall, J. Ashworth, A. Grime, T. Sutton, S. Porter, H. Hayes, G. E. Leigh, F. Ashworth, D. Potts, H. Winstanley, Rev. A. J. King, C. Longbottom, and E. Collier.

Minutes.—The minutes of the last Council Meeting were read, confirmed, and signed.

Correspondence.—A letter was read from the newly-formed Society, New Moston and Farlsworth, re affiliation. The Secretary stated the particulars had been sent, but they had replied, stating they had decided not to affiliate at present.

A letter was read from the Helmshore Society withdrawing from the Federation on account of their small membership. The Chairman (Dr. Helm) promised to interview them to see if they would not reconsider this decision. A letter received from the N.P.C. Secretary in reply to a letter sent through the Federation to that body by Westhoughton Society re Taxing of Poultry Cabins was fully discussed. It was decided not to press the matter at the moment. Horwich Society had written, stating their members were not satisfied with the judging at the Federation Show. Mr. F. Thompson moved the Secretary reply to this letter, stating the Federation had every confidence in the judges who officiated; this was seconded by Mr. J. Hall. The Secretary dealt with some lengthy correspondence from a member who had received a wrong bird from a show. Mr. J. Wrennall moved, and Mr. G. E. Leigh seconded, that the Federation could not go any further into the case.

Standard Committee.—Mr. J. Wrennall and Mr. W. Hamnett were instructed to attend this meeting, which is to be held in London on February 11th, 1926. Mr. Hamnett to attend in place of Mr. W. Grove, who has resigned from the Federation Council. Mr. F. Thompson moved, and Mr. J. Hall seconded, the Secretary write Mr. Grove, stating that the Council had to appoint another delegate on the Standards Committee in his place on account of him having resigned from the Federation Council.

National Poultry Council Meeting held at Coventry on January 21st, 1926.—The Secretary gave a report of this meeting after going through the finances of the N.P.C. and the Executive Report. He mentioned a case which was of interest to the N.P.C. re Income Tax. The Secretary was instructed to write this person on the matter. Arising out of this report was a request that the Lancashire County Council might favourably consider sending their poultry instructor to the World's Poultry Congress in 1927, which is to be held at Ottawa, also a letter be sent to the Secretary of the N.P.C. respecting an incident which arose after the discussion of the Federation resolution at the Council Meeting when the same had been withdrawn. Mr. F. Thompson moved the adoption of this report, which was seconded by Mr. D. Potts.

Accounts.—The accounts presented were passed on the proposition of Mr. T. Sutton, seconded by Mr. J. Whalley.

Election of Sub-Committee for 1926.—Educational and Propaganda.—Messrs. T. Edmundson, S. Porter, Rev. A. J. King, D. Braithwaite, C. Longbottom, W. A. Hall, W. Martindale. **Finance.**—Messrs. J. P. Willacy, F. Thompson, J. Hall, W. Kay, A. Grime, D. Potts. **Laying Test.**—Messrs. W. Hamnett, H. Hayes, G. E. Leigh, G. B. Tootall, J. Whalley, H. Winstanley, T. Sutton, G. Woodward.

Show.—Mr. F. Ashworth, who acted as Show Secretary, gave a report on the Show, which was held at Bolton last November. He said the loss would be £30 18s. 6d., chiefly owing to lack of support at the gate and paying too high prize money for the small entry fees. A vote of thanks was accorded all the Show Committee and Judges, and particularly the Show Secretary for all the work they had put in the Show. This was proposed by Mr. W. Martindale, and seconded by Mr. S. Porter. An invitation from Bury Society to hold the Show at Bury this

(Continued at Foot of Column Next Page).

FOOD PURCHASE SCHEME.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

Fish Meal (Pure White) ...	20/0	F.O.R. LONDON.
,, ,, ,, ...	20/0	F.O.R. BRISTOL
,, ,, ,, ...	19/0	F.O.R. SWANSEA.
,, ,, ,, ...	19/0	F.O.R. TYNEMOUTH.
,, ,, ,, ...	19/9	F.O.R. GRIMSBY.
,, ,, ,, ...	18/3	F.O.R. BRADFORD.

PRICES OF MASHES, PER CWT.

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	11/3	11/3	11/6	12/0
F.O.R. LIVERPOOL	12/0	12/3	13/6	13/6
F.O.R. LONDON	12/0	12/0	13/0	13/3
F.O.R. LEITH	11/3	11/3	12/3	13/0
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN ...	11/3	11/3	11/9	13/0
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/6	11/6	12/3	13/0
F.O.R. SOUTHAMPTON .	11/9	12/0	12/3	11/6
F.O.R. PLYMOUTH ...	12/9	13/0	12/9	14/6
F.O.R. ABERDEEN	12/9	11/9	13/9	13/9
F.O.R. HARROGATE ...	12/9	12/6	13/6	13/6
F.O.R. GLASGOW	12/3	12/3	12/3	13/3
F.O.R. STAFFS	11/6	11/6	12/9	12/6
F.O.R. SUSSEX	11/6	11/9	12/6	12/0
F.O.R. TEWKESBURY ...	11/9	11/9	13/0	14/9
F.O.R. HERTS	11/6	11/0	11/9	12/3

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	16/9	14/9
F.O.R. LIVERPOOL	18/3	15/3
F.O.R. LONDON	17/3	15/3
F.O.R. LEITH	16/3	14/3
F.O.R. LEICESTER	16/9	14/9
F.O.R. KING'S LYNN	17/6	15/6
F.O.R. BELFAST	18/3	16/9
F.O.R. BRISTOL	17/6	15/0
F.O.R. SOUTHAMPTON	17/9	—
F.O.R. PLYMOUTH	19/0	18/9
F.O.R. ABERDEEN	15/0	13/9
F.O.R. HARROGATE	17/9	—
F.O.R. GLASGOW	17/3	15/3
F.O.R. STAFFS	17/9	15/9
F.O.R. SUSSSEX	17/6	15/6
F.O.R. TEWKESBURY	18/3	15/0
F.O.R. HERTS	17/3	—

		Per Cwt.
MAIZE GRITS	F.O.R. LONDON ...	11/0
MAIZE GRITS	F.O.R. IPSWICH ...	11/0
S. G. OATS	F.O.R. LONDON ...	13/3
S. G. OATS	F.O.R. SUSSEX	12/6
S. G. OATS	F.O.R. BRISTOL	13/0
MEAT AND BONE MEAL ...	F.O.R. LONDON	13/9
MEAT MEAL	F.O.R. LONDON	14/3
MAIZE GERM MEAL	F.O.R. LONDON	9/6
MAIZE GERM MEAL	F.O.R. IPSWICH	9/6
MEAT AND BONE MEAL...	Carriage Paid	15/3
MEAT MEAL	Carriage Paid	15/9

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

The following can be supplied in one cwt. lots, Carriage Paid, to all members in :—

Sussex, Surrey, Hampshire and Kent :—

LAYERS' MASH	13/6 per cwt.
BREEDERS' MASH	14/0 ,, ,,
GROWERS' MASH	13/3 ,, ,,
CHICK MASH	15/6 ,, ,,
S. G. OATS	15/0 ,, ,,
CHICK FEED No. 1	19/6 ,, ,,
CHICK FEED No. 2	17/6 ,, ,,

Herts, Essex, Suffolk, Norfolk, Bucks, Middlesex, Cambs.:—

LAYERS' MASH	13/9 per cwt.
BREEDERS' MASH	14/3 ,, ,,
GROWERS' MASH	13/6 ,, ,,
CHICK MASH	17/0 ,, ,,
CHICK FEED No. 1	19/9 ,, ,,
CHICK FEED No. 2	17/9 ,, ,,

These cannot at present be supplied to counties other than those mentioned above.

"DAILY MAIL" EGG-LAYING TEST, 1925-26.

Report for Third Month—14th December, 1925 to 10th January, 1926.

The influence of the weather on egg production was strikingly illustrated during the third month. For the first two weeks it was very favourable and egg production rose steadily, then bad weather set in, with severe frosts, heavy snowstorms and biting north-east winds. The effect of this change was a sharp fall in the daily egg collections, which were at their lowest point at the end of the month. As was to be expected, the second year hens suffered the more severely, and although the first-cross pullets fell off towards the end of the period, their average for the month was 15.15 eggs per bird.

The average of the pure bred hens was 9.25, and that of the first-cross hens 11.62 eggs per bird.

Size of egg shows a further improvement, and it is interesting to note the small percentage of second-grade eggs laid by the White Wyandottes.

The health of the birds continues to be good, and in that respect they showed no ill effects from the severe weather.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs and Points respectively.

Section 1. Leghorns. Any Variety (Seven Hens).—Balsham Manor Farm, Balsham, Cambridge, 267, 246; R. A. and A. M. Johnson, Chalford, Glos., 256, 245; Viscount Elvedon, C.B., C.M.G., M.P., Old Woking Surrey, 205, 204; Mrs. Heber-Percy, Hodnet, Shropshire, 182, 181.

Section 2. Wyandottes, Any Variety (Seven Hens).—A. K. Speirs Alexander, Houghton, via Norwich, 252, 251; H. D. Barley, Kings Norton, Birmingham, 225, 225; Frank Snowden, Cowling, Keighley, 205, 205; A. Hughes, Malpas, Cheshire, 196, 192.

Section 3. Rhode Island Reds or Light Sussex (Seven Hens).—Major G. T. Williams, Perranwell, Cornwall, 200, 200; Edward Beer, Hadleigh, Suffolk, 171, 168; B. A. Wolryche-Whitmore, Ufford Hall, Stamford, 165, 162; A. A. Plimpton, Beverley, E. Yorks., 154, 154; Tilley and Webb, Basildon, Essex, 158, 154.

Section 4. Any Other Breed (Seven Hens)—P. Mills, Bishop's Castle, Salop, 149, 148; Wm. Hamnett, Blackpool, 137, 136; Mrs. Ward-Jackson, Kingsland, Herefordshire, 142, 123; Capt. H. C. Mackenzie, Eddington, Herne Bay, 119, 119.

Section 5. First-cross Hens competed in "Daily Mail" Test, 1924-25 (Seven Hens).—P. E. White, Market Drayton, Salop, 252, 243; H. Sutton and Sons, Little Hoole, Preston, 203, 197; Sydney Smith, Clifton, Nottingham, 196, 196; Warwick Rogers, Market Drayton, Salop 178, 172.

Section 6. Any First Cross (Seven Pullets).—H.R.H. The Prince of Wales, Duchy of Cornwall Farm, 341, 338; M. A., J. A. Brawn, Shire Oak Hall, Walsall, 260, 259; Albert V. Wallis, Clanfield, Oxford, 261, 252; A. Mansell, Kingston Stert, Thame, 331, 246; Mrs H. Burkinshaw, Binbrooke, Lincs., 254, 242.

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year was accepted on the proposition of Mr. F. Thompson, seconded by Mr. J. Hall.

The Secretary was instructed to write the Manchester Educational Authorities on behalf of the East Manchester Society re a room for their lectures and shows.

This closed the business, and the meeting terminated.

E. COLLIER, Organising Secretary.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, FEBRUARY 5th, 1926.

GRAIN AND FEEDING STUFFS.—Trade for British wheat has varied at the different markets, and the average quotation is 11s. 11d. per cwt., a reduction of 1d. on the week. Imported is in moderate supply, and, with a slightly improved demand, realises higher prices, increases ranging from 4d. to 8d. per cwt. being recorded. Home-grown barley is freely offered and generally meets a limited trade at easier rates, while foreign mostly sells at about recent prices. Moderate offerings of English oats attract little attention, but recent quotations are maintained at most markets. Imported oats at Bristol are in rather better demand and dearer, but at London and Liverpool average prices for some varieties are slightly lower on the week. Maize is in fair request and realises more money at some centres.

Bran is cheaper at all markets and averages about £7 9s. per ton as compared with £7 14s. last week. Coarse middlings are also reduced at Liverpool and London, the reduction being 5s. and 2s. 6d. per ton respectively. Meals generally meet a quiet demand, and most price changes are in a downward direction. Trade for oil cakes is slow and quotations are easier at most markets, but linseed cake is slightly dearer at London.

MILLERS' OFFALS.—Bran (British): Bristol, £8; Hull, £7 7s; Liverpool, £7 15s; London, £6 15s. Broad Bran: Hull, £8 17s; London, £8 17s. Middlings:—Fine (Imported): London, £8 5s; Coarse (British): Bristol, £8 2s: Hull, £7 15s; Liverpool, £7 15s; London, £7 2s. Pollards (Imported): Bristol, £6 10s; Hull, £6 5s; Liverpool, £6 5s; London, £6 5s. Rice Bran: Bristol, £7 7s; Liverpool, £6 15s. MEAL.—Barley Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9 17s. Maize Meal: Bristol, £9 15s; Hull, £8 15s; Liverpool, £7 17s; London, £9 10s. Maize Meal (S. African): Bristol, £9 10s; Hull, £8; London, £8 5s. Maize Germ Meal: Hull, £9; London, £8 5s. Maize Gluten Feed: Bristol, £10 10s; London, £9 10s. Locust Bean Meal: Hull, £10; Liverpool, £9 10s; London, £9 12s. Bean Meal: Bristol, £13 10s; Hull, £11 12s; London, £12 5s. Fish Meal: Bristol, £21 10s; Hull, £20 10s; Liverpool, £19; London, £19 10s.

EGGS AND DEAD POULTRY.

Eggs have experienced a disappointing trade and most varieties are quoted at reduced figures, the depreciation being very pronounced for best continental selections, of which there are plentiful supplies. The dead poultry section is quiet and nothing of interest is reported.

Week-end Prices—Eggs (per 120): British, 21s 9d, 18s 6d; Irish, 20s 6d, 19s 9d; Danish, 21s 6d, 20s 6d; Dutch (brown), 21s 0d, 20s 0d; Dutch (mixed), 19s 0d, 17s 3d; French (brown), 21s 6d, 20s 6d; French (mixed), 18s 6d, 17s 6d; Belgian, 18s 3d, 17s 3d; Italian, 17s 3d, 16s 9d; Egyptian, 9s 6d, 9s 0d; Moroccan, 12s 6d, 12s 0d; Russian, 14s 6d, 13s 6d; Chinese, 12s 9d, 9s 0d; Styrian, 17s 0d, 14s 0d; Australian, 16s 0d, 15s 0d; Argentine, 13s 0d, 12s 0d; Californian, 15s 0d, 14s 0d; Polish, 14s 0d, 13s 9d; South African, 15s 9d, 15s 3d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 8d, 1s 6d; Irish, 1s 3d, 1s 2d; Others, 1s 5d, 1s 2d. Ducks, 1s 6d, 1s 3d. Geese, 1s 3d, 1s 1d. Turkeys, 1s 7d, 1s 4d.

EGGS.

Per Doz.—Ashford: First, 2s 6½d; Second, 2s 4½d. Birmingham: First, 2s 3½d; Second, 2s 3d. Bridgwater: First, 2s 5d; Second, 2s 2d. Chelmsford: First, 2s 7½d; Second, 2s 4¾d. Colchester: First, 2s 4¾d: Second, 2s 2½d. Doncaster: First, 2s 6d; Second, 2s 4d. Dorchester: First, 2s 2½d; Second, 2s 1½d. Exeter: First, 1s 11d; Second, 1s 10d. Hereford: First, 2s 1d. King's Lynn: First, 2s 3d; Second, 2s 1d. Llandilo: First, 2s 4d; Second, 2s 3d. Mold: First, 2s 1d; Second, 2s 0d. Newport (Mon.): First, 2s 3d. Norwich: First, 2s 8d: Second, 2s 4d. Oswestry: First, 2s 1d; Second, 2s 0d. Penzance: First, 1s 7d; Second, 1s 6d. Saffron Walden: First, 2s 4¾d; Second, 2s 2½d. St. Ives (Hunts): First, 2s 8d; Second, 2s 6d. Salisbury: First, 2s 2d; Second, 2s 1d. Skipton: First, 2s 3d. Truro: First, 1s 8d. Welshpool: First, 2s 2d; Second, 2s 0d. *Carlisle: First, 2s 3d. *Derby: First, 2s 6d. *Ipswich: First, 2s 3d; Second, 2s 0d. *Lincoln: First, 2s 6d. *Shrewsbury: First, 2s 3d; Second, 2s 0d. *York: First, 2s 9d; Second, 2s 8d.

FOWLS.

Per lb.—Birmingham: First, 1s 3d; Second, 10d. Doncaster: First, †5s 6d: Second, †5s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 5d. Llandilo: First, 1s 8d; Second, 1s 5d. Newport (Mon.): First, 1s 7d; Second, 1s 2d. Truro: First, 1s 4d. Welshpool: First, 1s 5d· Second, 1s 2d. *Derby: First, †6s 6d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d: Second, 1s 3d. *York: First, †6s 6d; Second, †6s 0d.

(Continued at Foot of Next Column.)

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, February 10th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

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Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.

We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

DUCKS.

Per lb.—Birmingham: First, 1s 3d; Second, 1s 0d. Doncaster: First, †6s 6d; Second, †6s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Llandilo: First, 1s 8d; Second, 1s 5d. Welshpool: First, 1s 5d. *Derby: First, †6s 0d; Second, †4s 0d. *Ipswich: First, 1s 4d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

*At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers . † Per head.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, FEBRUARY 17th, 1926.

Editorial.

THE INTENSIVE SYSTEM.

By **TOM NEWMAN.**

The following paper was read before the Western Counties Branch of the S.P.B.A., at Gloucester, on February 4th, and is published here by request:—

I am going to talk to you of a system of poultry-keeping which has been very loudly condemned, both by those who have given it a trial and those who have not—of a system which was introduced into this country some fifteen years ago, and which, in the main, proved a dismal failure, and I am resurrecting it because I have a great belief in its possibilities. Its failure has never been explained, and the causes have never been investigated. It is not at all satisfactory to say it was unnatural, or that it was too artificial, because you know it is inconsistent for the man who hatches his thousands of chicks in Mammoth incubators and rears them in hundreds under anthracite stoves, to talk of another system as being unnatural or artificial.

Further, you want to be very satisfied with your own system before you definitely reject another; and I do not think any of us would claim that what s called the semi-intensive system has been an unqualified success, and most of us who are poultry farming for a livelihood are not in a position to run our stock on free range.

When the intensive system was introduced fifteen years ago, and by that I mean the birds are totally confined to their houses, it was boomed and over-boomed. The result was that it was taken up by hundreds of people in a hurry, and dropped by many of them within a few months, but there were some successes. The President of the S.P.B.A. has now been keeping her stock intensively—and this includes the rearing—for over fourteen years, with consistent success, and I can speak from personal knowledge and observation of their health, vigour, and productive powers, and where Mrs. Hunter and others have succeeded why should so many fail?

We must admit that the whole question had not been very carefully studied, and, although our knowledge is not much to boast about even now, we do know a little more, and can remedy some of the most flagrant mistakes which were made. We must first consider the housing, which I regard as the primary cause of failure. When the system was adopted by those who to all intents and purposes were backyarders, keeping from twelve to twenty fowls, it met with a considerable amount of success; it was when we started to house in larger numbers that failure began, and there is no doubt that it was the design of the house that was at fault. It was of the lean-to type, and ventilation was apparently not understood. Colds and roup soon made their appearance, and owing to the bad ventilation it was exceedingly difficult to keep the litter dry, which led to other troubles. The value of light was not appreciated, and the back of the house was in semi-darkness for a great part of the day. Of feeding considerably less was known than we know to-day, and a great many failures can be traced to this, with that I will deal later, as you will appreciate, it must play a most important part in success or failure. There were certain deficiencies in the food which no one knew how to make good at the time, with the result that the birds were generally anaemic-looking, but this was not altogether a question of food.

I should say at once, that the greatest failure was the attempt to rear intensively. We have succeeded in doing so now, but at that time the mortality was fearful, and the survivors were not worth keeping; they were kept in "flats" one above the other, each flat was 2 ft. 6 in. wide and about 4 ft. long, with a removable glass in front, and a fireless brooder at one end. They were faced south, with the result that on a sunny day the chicks were scorched; there was a total lack of ventilation, and they died by the score.

Now, I think before I go any further, it would be wise to speak of the possible advantages of the system, then of its disadvantages, and then discuss the question as a whole. We will first of all deal with the rearing of the chicks. It may be safely said that 60 per cent. of the chick mortality is due to pneumonia in some form or other. I am basing my figures on information given me by well-known experts in disease; they are not my own. Of course pneumonia may be caused by many things, by exposure, by atmospheric conditions under the brooder, by overcrowding and over-heating, by chill, etc., etc., but the chief losses are due to exposure, and these, rearing under the intensive system should enable us to avoid. Then there are losses incurred through that dread disease, Coccidiosis. If you will forgive my saying so, there is no man in this country in a better, or even in a good a position as myself to form any idea as to ravages made by this disease, and how many poultry farmers have had to give up on this account? I know of several farms where the losses from this alone have been above 50 per cent. On one farm quite close to me over 2,000 chicks ranging from three to six weeks old were lost last year, and nearly the same number this, and I can assure you this is only one of many. Now you know this disease is caused by a parasite; wild birds are very subject to it, as are rabbits, although in the case of the latter it is said not to be communicable to birds, but I think more evidence is needed. We may, however, be fairly certain that on most farms the trouble originated with wild birds; these void the egg of the parasite in the excreta, it is picked up by the chick, who in its turn becomes a victim, after having itself infected the soil in the same manner. After six weeks the chick's resistant power is increased, and many survive—in their turn to infect the land, which may become so badly infected that it is impossible to rear chicks upon it. I know of one farm in Berkshire where this has occurred, and an attempt is being made to overcome the difficulty by intensive rearing this season. It is very difficult to eradicate the pest from the soil; two tons of lime to the acre proved wholly ineffective. Now, by rearing intensively, I think we have the best chance of combating this disease. There would not be the danger from wild birds if an outbreak occurred; the litter in an intensive house could be removed and burnt, and the floor disinfected. This, with the addition of killing all sick birds at sight, would check the disease, which is altogether impossible while the chicks remain on contaminated soil. I feel very strongly that the only possible means of fighting this disease with success is to rear our chicks intensively. In passing may I tell you the following, which may be interesting and helpful to those who have had no experience of Coccidiosis? Last week a lady wrote to say that she was losing a large number of chicks from crop-binding, and that she had ceased giving them dry chick feed because she always found the crops full in the morning. Now this was not crop-binding, but simply a case of arrested digestion, due to the diseased condition of the chick; I would not say that the full crop is a definite symptom of Coccidiosis, because it occurs with other diseases, but if you are losing a large number of chicks at from three to six weeks old, it is suggestive. The post-mortem examination confirmed the opinion that the chicks were dying from Coccidiosis.

(To be Continued.)

Why your Hens are not Laying.

Broadcast Talk—January 29th, 1926.

By J. RHYNEHART.

Continued from page 86.

Pullets or Hens.—Do not expect winter egg from old hens. They will disappoint you; and d not expect profitable egg production at any seaso of the year from very old hens. Unless a hen a particularly valuable one from the breeding poi of view, do not keep her after her second layin season. For egg production three-year-old her are not a paying proposition. If your flock co sists mainly of hens, that is one of the reasor why you are not getting many eggs. **The pull is the chief producer of the winter egg.**

Influence of Time of Hatching.—Pullets of good laying strain, housed in the best possibl way, will not lay in winter unless they are hatche early. There is no use in hatching a Wyandott pullet in May if eggs are wanted in the followin October. Remember it takes a Wyandotte pull about seven months to come to maturity—ligh breeds mature in about six months—so that fo October eggs you should hatch the Wyandotte an other general-purpose breeds in late February an in March, and the light breeds in late March an in April. The value of early hatching cannot b too strongly emphasised. Besides the winter egg there are various advantages, such as less troubl in rearing chicks owing to less danger of suc diseases as gapes, the surplus cockerels are mor valuable since they are ready for market whe prices are highest. Early hatched cockerels ar also most valuable as breeders, while the earl hatched pullets make satisfactory breeders if r quired. Pullets of the general purpose breed hatched in May will not lay before the New Yea and thus fail to add to the returns when eggs ar dearest; they never overtake their sisters wh started in October, and who laid possibly 3½ doze eggs during the dear period, representing a valu of fully 10/-, which is about the cost of feedin a hen for a year. Were **your** non-laying pullet hatched too late? If so, please remember to star hatching early this year. It will soon be Feb ruary, so you must get busy if your chicks are t see the world early in March.

Influence of Rearing.—"But," you say, " hatched my pullets early, they are of a good laying strain, they are housed comfortably and ye they are not laying." Yes, but these are not th only essentials. I have many others to deal wit yet, and it is only when all the essentials are fulfilled that satisfactory egg production in winte is secured. Oftentimes the advantages of early hatching are lost by improper methods of rearing the chickens. This may appear strange to some of you, but it is a fact. If the pullets are improperly fed and managed during chickenhood their development is retarded, and they do not reach maturity as early as they ought. The chief faults in chicken rearing are the use of a bad feeding ration and overcrowding. An experiment conducted at the West Virginia Experiment Station, U.S.A., with White Leghorns showed that improper feeding of the chicks had the following effects :—

(1) It reduced the rate of gain in body weight and the weight at maturity.

(2) It delayed the date of maturity ; the badly-fed pullets were 198 days old when laying commenced, whereas the well-fed lot started laying three weeks earlier.

(3) It reduced the number of eggs laid by the pullets during their first laying season.

(4) It reduced the average weight of the eggs laid by the mature birds.

The feeding and management of the chickens and of the pullets prior to their coming into lay has an important effect on their subsequent behaviour. Bad methods retard development and delay maturity.

Is faulty feeding during chickenhood the cause of your hens not laying? Are you satisfied that your chicken rearing methods are all that they might be?

It is just possible that you may have erred in the other direction, and have, by over-kindness, stopped production. Forcing feeding in August and September encourages premature maturity in your pullets. Many poultry-keepers are only too familiar with the bantam eggs which are laid by immature pullets. Such eggs are oftentimes laid by pullets which are fed on a forcing diet, containing spices or an excess of rich food, such as fish meal or meat meal. This forcing has disastrous effects. In the first place, these bantam eggs are useless commercially ; secondly, the pullets lay, say, until October or November, when they invariably moult, and so production ceases at a time when it is very desirable that it should continue. There is, further, the effect which is even more disastrous than those mentioned ; it is this—the lime salts which normally and naturally should go to build up the bones of the young pullets are used instead for the making of egg shells, and, consequently, the proper development of the bony framework is arrested. Thus the bodily size and internal organs, including the egg-making organs, remain stunted, and the final result in the majority of cases is that these prematurely matured pullets will go on producing small-sized eggs throughout life, and will, moreover, be less vigorous constitutionally than if they had developed normally. Bad results may be due either to underfeeding or overfeeding during the development period of a pullet's life. Both are equally bad.

I now come to a cause of the lack of winter eggs on a great many farms—the feeding of the layers. This is probably the cause, more than any other, of an unsatisfactory yield. You may fulfil all the other conditions requisite for winter eggs, but if you do not feed intelligently and liberally you will not get eggs in winter. Remember the egg is one of the most concentrated of foods ; it has a high percentage of that complex substance known as protein, a substance which cannot be manufactured from fats, carbohydrates, or any other food constituent except protein. Look on the laying hen as a factory constructed to manufacture a highly nutritious and digestible food—a food which is presented in naturally sealed packages in the form of eggs. It is obvious that for the manufacture of any commodity the necessary raw material must be provided. If, in the case of a linen factory, the raw material (flax) is not supplied in sufficient quantity, then the factory cannot produce to capacity. Similarly with the egg factory. If the egg factory is not supplied with the raw materials in adequate quantity egg production will not reach capacity.

Now what are the raw materials that the egg factory requires? An analysis of the product will give us a clue. The egg contains about 66 per cent. of water, 13 per cent. protein, 9 per cent. fat, 12 per cent. mineral matter. We must therefore supply the factory with these raw materials, not alone in adequate quantity, but in suitably balanced proportions. But we must not forget that the factory needs power or fuel to keep it going, therefore something more than the raw material for production must be provided. The fuel required by animals consists of carbohydrates and fat, which they burn to produce heat and energy. If, however, too much fuel is provided the machinery of the factory clogs and production diminishes. This is what happens when a hen gets too fat. Fattening foods are those, such as maize and potatoes, grain and grain products, which contain a high proportion of carbohydrates. If, therefore, these form the chief food of the laying hen, the raw materials for production are not being supplied to requirements and production will diminish. This is one of the chief mistakes made in feeding laying hens. Maize or Indian meal and potatoes are expected to do what they never can do, namely, provide the hen with protein and minerals in sufficient quantity. You must supply mineral matter if you want winter eggs. Oyster shell, cockle shell, fish meal, meat and bone meal, milk and fresh green food all supply mineral matter in quantity. You must supply protein if you want winter eggs. Milk, fish meal, meat and bone meal, soya bean meal, supply protein. You must provide drinking water at all times if you want winter eggs. Don't forget that the water will freeze occasionally, and that the ice cannot be utilised by the layer. Therefore, watch the water supply in cold weather, and do not ever leave the hens dependent on ice.

You must balance the ration if you want best results. For example, 10 per cent. meat meal when minerals are provided will give equally as good results, and at much less cost than double that quantity without minerals. And remember, a good hen in lay cannot be overfed in winter when a properly balanced ration is being used. Experiments have shown that during the winter months egg production may be increased by increasing the consumption of both grain and mash. Therefore encourage the winter layer to eat more than she is wont to do. This can be done by leaving a hopper of dry mash in the house so that she can have access to it at all times. If this hopper is placed so that she can help herself to food when perching she will have an extra temptation to eat. Give a good allowance of grain in the litter in the morning, and don't forget to rake it well in so as to induce the birds to scratch. Reward sweetens labour. Give another small feed of grain just before dusk and encourage the birds to remain off the perches feeding as long as possible, but see that each one has a full crop when it goes to roost. Fresh green food has a marked influence on health and vigour. See that your birds are provided with an adequate supply, especially if they do not get out regularly.

Are your birds healthy and free from lice and red mite? If they are not you cannot expect results. The first essential for egg production is good health. Colds and roup are prevalent, and both hinder production. Lice are serious enemies of the layer; they bite sharply and cause intense irritation, so that condition and vitality are lowered and production of eggs is impaired. Examine a few of your birds in the region of the vent, and if lice are present they will be readily seen. A very effective remedy for lice is sodium fluoride—SODIUM FLUORIDE—which can be obtained from the chemist. You had better spell the name in full to the chemist, or else you may return with a package of sodium chloride (common salt), as a poultry-keeping friend of mine did on one occasion; common salt is not a remedy for lice. Dust the sodium fluoride powder into the feathers, and rub it well in towards the skin. A good home-made dressing for lice is prepared by mixing three parts paraffin oil with one part carbolic acid, 90-95 per cent. strength, and adding slowly, by stirring, enough plaster of Paris to take up the moisture—four parts of plaster to one part of liquid will be necessary. Spread the mixture to dry and apply it as a powder. Repeat either dressing in ten days' time.

Red mite may be even more dangerous than lice, and is always more difficult to detect since it hides away in crevices of the house during the daytime, coming out to suck the hens' blood during the night. This terror of the night and despoiler of dreams cannot be killed by treating the hen Attack it in its hiding places. Clean out the house thoroughly, and use plenty of limewash to which has been added a little paraffin oil. Paint the perches and their supports with creosote, and fill up crevices and cracks in which the marauder may hide. Make the house as bright as possible, and so impede the multiplication of all parasites since they "love darkness rather than light."

Finally, I would enjoin you not to be discouraged if you have had disappointments. Try again. Success in poultry-keeping as well as in any other specialised calling requires grit and perseverance but it also requires constant work, selective breeding, early hatching, discriminate feeding, efficient housing, intelligent anticipation, keen observation, and a good store of patience and business capacity.

WYE COLLEGE DUCK LAYING TRIALS, 1925-26.

The trials commenced on November 1st, 1925, and extend over a period of 48 weeks. Each entry consists of five ducks bred in 1925, of which there were 145 entered in all. All the ducks are trap-nested, and are run as one flock, on free range.

The eggs are graded according to weight, viz., a first-grade egg is one which weighs 2ozs. or over. Second-grade eggs are those which weigh under 2ozs These do not score, and are not included in the pen score in the record sheets, but are shown in a separate column as second-grade eggs.

Report for the Third Period—Dec. 27th, 1925—January 23rd, 1926.

During the month we have again had the experience of a week's snow and frost, which at once reflected upon the egg yield. As soon as the snow cleared a general improvement quickly set in This is exactly the experience during the second period, when snow and frost were prevalent.

The average number of eggs laid per bird during the month has been 6.02 which brings the average to date to 18.75 eggs per bird

Pen Positions.—The leading position in the whole of the trials is still held by Mr. G. H.H. Simmon's Pen No. 6 (Khaki-Campbells) with a score to date of 201 first-grade eggs.

The leading pens in the breed sections are:

Khaki-Campbells.—Mr. G. H. H Simmon's Pen No. 6, 201; Mr. A. N. Dickson's Pen No 17, 170; Miss Mallam and Mrs. Giffard's Pen No. 11, 147.

Indian Runners.—Miss Harrison Bell's Pen No. 26 (W.), 195; Mr. C Powell's Pen No 25 (F. and W.), 144; Messrs. R. A. and A. M. Johnson's Pen No. 28 (W.), 136.

Competitors and others may visit the trials by appointment only.

F. W. RHODES, Poultry Department.

MEMBERSHIP OF THE S.P.B A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.

Some Fruit-Growing Notes

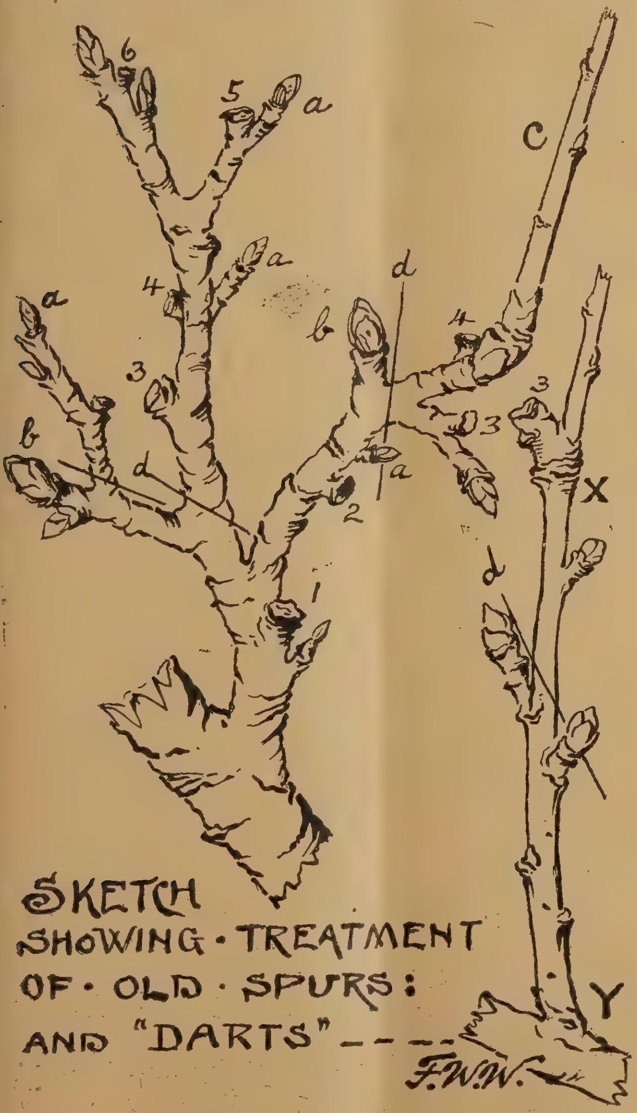
to help Poultry-Keepers.

By **F. W. WHEELER, F.R.H.S.**

PRUNING.—Continued.

To-day we are going to consider some pruning features respecting older trees, and the main point will relate to the treatment of old spurs. A few days ago I was making a careful examination of some apple trees about fourteen years old, and was really surprised to see how the spurs had been left to extend year by year until some of them had even reached a length of over fifteen inches, and as the main branches were well furnished with spurs it naturally meant that the interior of the trees were far too crowded, and that sunlight could not have its beneficial influence on tree and fruit.

Again, these long gnarled spurs, when examined more closely, also showed that the numerous fruit eyes were small and not likely to produce even moderate-sized fruit; unfortunately, the evil was exaggerated, because in many cases likewise devoid of fruit buds. It is this small fruit which only commands such low prices and at times is almost unsaleable, so it is very important that when we have a nicely-developed tree, and one likely to give a good crop, we want the largest fruit we can produce.



SKETCH SHOWING · TREATMENT OF · OLD · SPURS: AND "DARTS"

Now, the obvious thing is to reduce the number of eyes on a spur, but it is so often neglected. I am giving below a sketch of an old spur, which may be considered as an average example of what can be found on so many older trees, and this will, I hope, help to illustrate my remarks as to reducing the number of fruit eyes.

Firstly, it is interesting to trace the approximate age of the spur by the remains of eyes as seen by the points marked on the Drawing 1 to 6 indicating successive seasons.

Then note the small fruit buds (2) as compared with the plump ones (b), but even these are too numerous to give us good-sized fruit. The lines (d) indicate where to cut back, and (c) shows part of a young lateral which if left would still further enlarge an already over-developed spur.

We must not be rash and dash out with our knives to cut off all these surplus fruit buds, or we shall give too great a check to the trees and defeat our own ends. When a tree has been badly neglected only cut back on alternate spurs to two good eyes this winter, and lightly prune the remainder. Next winter hard prune the lightly-pruned spurs.

It is quite possible that it will be found necessary to entirely remove some of the long barren and contorted spurs to lessen the overcrowded state of the tree. Also, where severe spur pruning has been done in the past there may be found coarse new growths of unripe wood, requiring complete removal, leaving no base eyes to break into new growth.

There is a feature I have not touched on which comes as an intermediate stage between the pruning of laterals (dealt with in my three previous articles) and the old spurs of to-day's notes. I refer to short laterals or "darts" left because they had developed fruit buds on the tops; these, after bearing fruit, may later on develop fruit eyes nearer to the main stem, in which case the dart can be shortened back to the new fruit bud (or two if good ones). Of this I have also given an illustration X-Y.

The treatment of old pear trees is similar, and it will be found that usually the pear, as compared with the apple, has a tendency to form even larger gnarled fruit spurs. A gradual reduction to two good fruit buds on a spur is what we should aim for.

Just a word re Plum Trees. Stone fruit is not fond of the knife, therefore the pruning to well-

(Continued at Foot of Column Next Page).

Correspondence.

JUDGES, JUDGING, ETC.

Dear Sir,—Your remarks on the above subject are interesting, particularly your summing up, that our utility judges have not all learnt the limitations of handling, and that we shall only know its value when we know its limitations.

You have stated in "Eggs" many times that handling must be associated with observation, and more observation than handling, to be of any service in aiding us to find the profitable pullet or the cockerel likely to be of great service in the breeding pen, and with this opinion I heartily agree, but would add, more attention should be given to **expression.** Some of our utility judges seem to attach too little importance to observation and to the general expression of the bird, partly because they do not take sufficient time and because few poultry breeders quite realise the importance of studying the expression of a bird and finding out what it denotes.

I think it is generally accepted that the make-up of an animal (and human being), the temperament, habit, health of the organs, and capacity for work are reflected in the facial expression. For instance, cows. Study the expression of the heavy milker and compare it with that of the poor producer, and if you have an eye and mind cultivated to observe details you will be surprised at the difference, and this difference narrows as the productivity of the cows approaches equality. The difference may be in the eye, the muscles of the face, the size and position of the mouth, or the growth of hair. One does not require much experience to differentiate between the good and the bad-tempered horse by the facial expression, or is it very difficult to tell the worker from the "gibber." I know a successful breeder of hackneys who bought mares dirt cheap simply on their general appearance and facial expression, mares that he knew if properly mated would "throw" champions, and they did. He had the "instinct," the "gift" of buying and mating well, but he also had his own idea of expression, but was reluctant to admit it.

Without entering into an argument on physiology or biology, I would commend to your readers and utility judges the importance of studying facial expression in poultry. It is one of the dangers of the trap-nest that too much reliance is placed on it and too little attention is given to observation. I keep hundreds of birds, and I know each one of them by some little difference in the expression; it may be the set of the comb, the eye, the beak, or the carriage of the head. I have visited poultry farms where trap-nests have been in constant use for years, and I have surprised the owners by my accuracy in selecting the best pullets and hens without handling them. I have been struck by the lack of observation on the part of these breeders, who did not realise the difference in the facial expression of birds of the same breed until I pointed it out to them, and they did not appear to have formed a conception of the ideal layer's head. They had read Hogan, and could handle, or thought they could.

I have been farming for some years and have never had a trap-nest on the farm, and I don't know that I want one. Last year my pullet average exceeded 200. I seldom introduce fresh blood, although I do not in-breed. I have never lost a bird in a laying test; my mortality is not more than 2 per cent., and I have never had a case of B.W.D., coccidiosis, or tuberculosis. People ask me how it is done. It is done by the use of a few small houses, by thoroughness in selection, careful management, and by culling, and yet culling, until I reach my standard of **expression.** Bone formation, capacity, health and vigour are reflected in a bird's head and face, and I advise enquirers to study the face, study it again and get fixed in the mind the expression of the healthy worker and heavy layer.

I venture to think I have found characteristics in the small-egger that are absent in the first-grade egger, and I have been experimenting to find the non-broody and broody before laying starts with considerable accuracy. The hen is not a mammal, of course, but certain indications apart from her "talk" are, I feel, to be found in the pullet likely to develop much broodiness.

I should say I have not arrived at my conclusions by accident. I hold qualifications by examination which necessitated a comprehensive study of the anatomy and diseases of animals (including poultry), and bacteriology, etc. I have amused myself boiling down dozens of carcasses of hens and cockerels to get a thorough knowledge of the anatomy, and made many sketches to aid my memory, but I seem to have gradually come to neglect much of this, and have found more interest, more accuracy, and more success, in the belief that the correct pelvic, the right comb, the capacity, the desirable health and vigour, the fine legs, the prepotency—in fact all the qualities that go to make the layer, and the sire of layers—are to be found in the bird's head, his or her **expression.** I still observe little differences I am unable to explain, but I feel I shall eventually be able to put my hand on my ideal and record-breaking layer without Hogan or a trap-nest.

R. McKENZIE.

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developed trees should be confined to only reducing the number of branches where crowded.

I think, as we are getting well into February, I ought to devote my next contribution to matters that bear on SPRAYING.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex,

THE WESTERN COUNTIES BRANCH.

On Wednesday, the 3rd inst., I visited Gloucester and addressed two meetings of the sub-branch of the Western Counties Branch. There was a good attendance at both meetings, presided over by Mr. F. Bacon, and I was much gratified at the keenness shown and the enthusiasm and loyalty to the S.P.B.A. My subject at the afternoon meetng was "The Intensive System," and at the evenng session "The Little Things That Matter."

In the afternoon Mr. R. T. Thornton gave some useful hints to beginners, and Mr. R. A. Johnson followed me in the evening, taking as his subject "Some Factors in Successful Poultry Farming." His very practical and interesting lecture was much appreciated by the audience, and there was afterwards a keen discussion on the two papers.

On the Thursday afternoon we travelled to Tewkesbury, where, by the kindness of the Mayor, a very successful meeting was held in the Town Hall, over which he presided. There was a large ttendance, and a good discussion on the subjects dealt with in my lecture, "Some Problems of Poulry-Keeping," but the sensation of the evening was provided by our friend, Mr. Bacon, who, in the ourse of his remarks, dealt with the benefits which farmers would receive if they were to give erious attention to poultry-keeping. I won't say is courage outran his discretion, but he was aring enough to say that it had not been good for he industry for the farmer's wife to receive all the rofits from poultry as their pin-money. This hallenge was very quickly taken up by a lady in he audience, who asked some very pertinent quesons of Mr. Bacon, which I do not think he nswered quite satisfactorily—at least, not to the adies' satisfaction.

They are very keen poultry-keepers in the West, nd there is some first-class stock in that direction. he visit was a most enjoyable one, and I came way feeling that in that part of the country they re very much alive to the problems of the indusy and are facing them.

HOMEOPATHY.

I have received the following letter from Mr. de usel :—

"Dear Mr. Newman,—Having had a little experience of homeopathy, I feel that it would be to the advantage of poultry-keepers in general if those readers of 'Eggs' who know anything about the subject would give their knowledge to the rest.

I have only been interested in homeopathy a few months, but have seen and heard enough to accept the principles in general, and consider it is my duty to approach the matter in 'Eggs' in the interest of progress. Perhaps someone who knows more about it than I do will give a lead."

We must be a little careful in the way in which we touch upon this subject. Mr. de Kusel considers it his duty to approach the matter in "Eggs" in the interests of progress. Well and good, but he admits having had but a little experience. It may be of interest to discuss it, but please avoid controversy.

TRAVELLED EGGS AND INCUBATION.

I have received the following letter from a reader who wishes to be known as "Southern Cross" :—

"Dear Sir,—The following point has been raised in your columns, nevertheless I should be grateful if you would print my letter and invite your readers to give their experiences.

I recently purchased 600 W.W. eggs from a very well-known breeder. They were to be delivered in two consignments of 300 each on January 3rd, the first lot arrived and were unpacked, and **at once** put into Hearson machines. The fertile eggs hatched well. Owing to a high degree of infertility I obtained a further 110 from my friend, and these also I put into the 'Hearson' **immediately** after unpacking. Fertility was high, but at twelve days I discovered, beyond doubt, what I had suspected on the 6th day, that every egg, except some half dozen was addled.

Naturally, I took the question up with my friend. He asked me if I rested the eggs for 24 hours. I replied that, following your advice, I had not. He is of opinion that failure to rest these eggs is sufficient to account for the trouble. I pointed out that the first consignment hatched well, and his counter to that was to say the larger box (300) would not be so roughly handled as the smaller (110), and the consequent need for resting, correspondingly less.

That is all. It is the experience, and not the opinions (if I may say so), of your readers which would be of most use to me, and to all those interested.

I am, yours faithfully,
"SOUTHERN CROSS."

To me the argument of the breeder is rather futile. If the eggs were so damaged in transit that they were addled, no resting for 24 hours would have had any effect whatever. They may just as well rest in the incubator as out of it; if they are so shaken that the yolk is all mixed up, no resting will mend it, and the blastoderm, or germinal disc, is always to be found uppermost, whatever the position of the egg; that is because that portion of the yolk which is in the neighbourhood of the disc has a lighter specific gravity.

FOOD PURCHASE SCHEME.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

Fish Meal (Pure White) ...	20/0	F.O.R.	LONDON.
,, ,, ,, ...	20/0	F.O.R.	BRISTOL
,, ,, ,, ...	19/0	F.O.R.	SWANSEA.
,, ,, ,, ...	19/0	F.O.R.	TYNEMOUTH.
,, ,, ,, ...	19/0	F.O.R.	GRIMSBY.
,, ,, ,, ...	18/3	F.O.R.	BRADFORD.

PRICES OF MASHES, PER CWT.

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	11/0	11/0	11/3	11/9
F.O.R. LIVERPOOL	12/0	12/3	13/6	13/6
F.O.R. LONDON	12/0	12/0	13/0	13/3
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN ...	11/3	11/3	11/9	13/0
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/6	11/6	12/3	13/0
F.O.R. SOUTHAMPTON .	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH ...	12/3	12/6	12/3	14/0
F.O.R. ABERDEEN	12/9	11/9	13/9	13/9
F.O.R. HARROGATE ...	12/9	12/6	13/6	13/6
F.O.R. GLASGOW	12/3	12/3	12/3	13/3
F.O.R. STAFFS	11/0	11/0	12/6	12/3
FO.R. SUSSEX (East) ...	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/6	11/0	11/9	12/3
F.O.R. SUSSEX	11/6	11/6	12/6	12/6

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	16/9	14/9
F.O.R. LIVERPOOL	18/3	15/3
F.O.R. LONDON	17/3	15/3
F.O.R. LEITH	16/3	14/3
F.O.R. LEICESTER	16/9	14/9
F.O.R. KING'S LYNN	17/6	15/6
F.O.R. BELFAST	18/3	16/9
F.O.R. BRISTOL	17/6	15/0
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	15/0	13/9
F.O.R. HARROGATE	17/9	—
F.O.R. GLASGOW	17/3	15/3
F.O.R. STAFFS	17/9	15/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	16/9	14/9
F.O.R. SUSSEX	18/0	14/9

			Per Cwt.
MAIZE GRITS	F.O.R.	LONDON ...	10/9
MAIZE GRITS	F.O.R.	IPSWICH ...	10/9
S. G. OATS	F.O.R.	LONDON ...	13/3
S. G. OATS	F.O.R.	SUSSEX	12/6
S. G. OATS	F.O.R.	BRISTOL	13/0
MEAT AND BONE MEAL ...	F.O.R.	LONDON	13/9
MEAT MEAL	F.O.R.	LONDON	14/3
MAIZE GERM MEAL	F.O.R.	LONDON	9/3
MAIZE GERM MEAL	F.O.R.	IPSWICH	9/3
MEAT AND BONE MEAL...	Carriage Paid	... ...	15/3
MEAT MEAL	Carriage Paid	... ...	15/9

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

The following can be supplied in one cwt. lots, Carriage Paid, to all members in :—

Sussex, Surrey, Hampshire and Kent :—

LAYERS' MASH	13/6	per cwt.
BREEDERS' MASH	14/0	,, ,,
GROWERS' MASH	13/3	,, ,,
CHICK MASH	15/6	,, ,,
S. G. OATS	15/0	,, ,,
CHICK FEED No. 1	19/6	,, ,,
CHICK FEED No. 2	17/6	,, ,,

Herts, Essex, Suffolk, Norfolk, Bucks, Middlesex, Cambs.:—

LAYERS' MASH	14/3	per cwt.
BREEDERS' MASH	14/9	,, ,,
GROWERS' MASH	14/0	,, ,,
CHICK MASH	17/0	,, ,,
CHICK FEED No. 1	20/3	,, ,,
CHICK FEED No. 2	18/3	,, ,,

These cannot at present be supplied to counties other than those mentioned above.

WHAT'S IN A NAME.

To the Editor of "Eggs."

Dear Sir,—"The proof of the pudding is in the eating." Is there another Poultry Club, Society or Association which can boast of a membership in eleven years such as the S.P.B.A.? The one word "Scientific" added my name, after reading one issue of its journal "Eggs," for there I saw it was what it professed to be.

I cannot see that Mr. E. J. Bacon's change of name to "The Poultry Breeders' Association" would accurately describe the objects of the S.P.B.A.

The few who "shy" at the word "Scientific" would no longer do so after reading "Eggs," which is full of useful information to every poultry-keeper.

Faithfully yours,

A. G. EVERARD, M.R.C.V.S., L.R.C.P.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to **Major C G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.**

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership **(NOT from Major Saunders).**

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

E. G. B. (Dorset). It would have saved you considerable trouble—and incidentally me, too—had you examined the eggs before sending them. Of the dozen sent 10 were infertile. One was addled, and one had a chick which had died about the 14th day. Under the circumstances we can only conclude that the stock birds are very much at fault. Had you sent me particulars of your mating, I might have been able to advise you. Before sending eggs next time just break two or three if you are not able to test them with a lamp. (2) Your feeding is at fault. The amount of fish meal you are using is very excessive, and it is possible that this has affected both the hens and the male bird. If you reduce it by one half, and add one pound of Sussex ground oats to your mash, you should get better results.

G. B. C. (Devonport) has had a very considerable drop in the egg yield. Some of the pullets are suffering from diarrhoea, and they are moping around and generally looking a very poor lot. My correspondent is very disappointed, as up to a fortnight ago they were in splendid condition, and continuing to lay well. The trouble arises from the sample of mash sent, and my novice readers may pay particular attention to this. To all appearances it was good, but one must use one's nose as well as one's eyes, and it was decidedly mouldy. What particular constituent in the mash was the cause of the trouble I am unable to say. However, it should be apparent, even to a beginner, that to use a mash smelling as this did was likely to cause the greatest injury to the stock. The only thing to do now is to give the birds a mild dose of Epsom salts, and put them on a fresh mash. This sample at 16s. per cwt. was very dear. In answer to my correspondent I would not advise the the addition of Cod Liver Oil in such a case.

G. R. D. (Wallington) asks if it is necessary to give her chicks linseed meal in the mash while they are growing their feathers. It is not absolutely necessary, but it does assist in feather growth, and linseed is also a valuable food because it is rich in lime. I would suggest to my correspondent that she reduces the percentage of bran in her mash to three. She found that several of the chicks were full developed in the shell, but were unable to break through the membrane, which was hard and tough. Possibly the eggs were a little stale, but I could not express an opinion without having further details.

W. B. (Finchampstead) asks if I would please let him know as soon as possible with regard to the following. He placed 160 eggs in a 150 Gloucester incubator; 23 clears were removed, this left 137 at hatching time, and he had a splendid hatch, 130 chicks, which he placed in a 150-size Phipps' brooder (outdoor), and on the fourth day he saw a chick with one eye very watery. He took it out and wrung its neck; to-day he found another one the same, and he wrung its neck also. Both chicks were lively, good crops in real good "nick," except the eye, and he asks whether this is some complaint, or do I think it would be the Izal powder which he has used freely? He may have used the Izal powder rather freely, and this would possibly cause the watery eye, but in any case he would be wise to give the following in the drinking water:—40 grains of citrate of iron and quinine to every gallon of drinking water, and allow the chicks nothing else to drink. He should also be careful to see that the ventilation of the brooder is all that can be desired, that there is no overcrowding or overheating.

J. H. (Rochdale) asks if I would please tell him if the intensive system of poultry-keeping for egg production is worth a trial. If so, what do I consider the most suitable breed for this system —light or heavies. He has a keen fancy for Wyandottes.—Yes, I certainly think the intensive system of poultry-keeping very well worth a trial, and he will see what I have to say on the subject in the Editorial this week. I can see no good reason why he should not be successful with Wyandottes, when we have reports of Light Sussex which are doing well on it, and I know two or three people who have been successful with Wyandottes—our President for one. With regard to his second question: If he wishes to make the sex-linked cross, he must use R.I. Red cockerels and White Wyandotte hens; this is a very good cross for egg production, and the cockerels will come white or silver and the pullets buff or red.

C. G. (Barnsley) sends me sample of meat meal. He has had a lot of sour crop among his Leghorn pullets. This sample was purchased at 17s. per cwt. It contains a lot of hair and hide, and this will be sufficient to account for the sour crop with the pullets. It is a bad sample of carcase meal, and is unfit for poultry consumption. I would advise all my readers who receive samples of meat meal to be particular to see that it does not contain hair and hide; even a novice should be able to detect this.

F. C. (Newcastle) sends samples of dry mash ingredients—sharps, alfalfa, maize meal, meat and bone meal, and also kibbled maize. His Leghorns, last April hatched, have laid well on his last stock, but in less than three weeks after using these samples they stopped laying altogether and have not laid an egg for three weeks. The mash is:—4 lbs. sharps, 1 bran, 1 alfalfa meal, 1 maize meal, 1 meat and bone meal; hopper always open. He wishes to know if any of the ingredients are the cause of his lack of eggs. No, this is not the cause. The ingredients on the whole are very good, and above average quality. I think if my correspondent were to add another pound of maize meal to his mash, or one pound of Sussex ground oats, he would see some improvement in production, as his mash at present has not enough "body" in it.

B. M. (N. Wales) wishes to know if he could safely dispense with artificial heat for chicks at seven weeks old. This question as to at what age one can dispense with artificial heat for chicks is so frequently asked, but readers, if they will think a little, must know that this depends a great deal upon the temperature. In the recent severe weather it would have been folly to wholly dispense with artificial heat for chicks seven weeks old, unless they were exceptionally comfortably housed. On the average we can safely do without artificial heat at six weeks, but it depends, as I have said, on outside temperatures; and chicken rearing, like everything else in life, is a matter of observation and common sense rather than a rule of thumb.

T. H. P. (Fawkham) has had some bad luck with Sussex cockerels, and he wonders if he could get a good cross with a pen composed of 20 Light Sussex (well-grown pullets) with two good White Leghorn cocks which he has to spare, if I consider the cross suitable for laying, and would he be able to tell the sex of the chicks at hatching?—This will make an excellent cross. The birds are first-class layers, quick to mature, and quite good quality table birds. My correspondent would not be able to tell the sex of the chicks at hatching. The great majority of them would be pure white. He intends to feed his chicks this year on our formulae, and wonders if, as he has to use all soft water, the addition of limewater would be beneficial. Yes, certainly it would be beneficial, but it would be hardly necessary if he has plenty of skimmed milk. He adds:—"As rabbits are to some degree suspected of carrying diseases similar to poultry," would I advise young chicks shut up in the brooder house until they are six weeks old, as all available ground is contaminated by wild rabbits, pheasants, etc. The one fear in this respect would be coccidiosis, and that is one reason why I so often advise the rearing of chicks intensively. After the success achieved in the Wellingham experiments last year, I do not think there is much room for doubt that this can be successfully carried out.

C. H. B. (Castlebellingham). Black Leghorn-Barred Rock Cross is one of the best of the sex-linked crosses. It gives excellent layers; some of the birds would be broody, certainly. I think you could get the Barred Rock chicks from Mr. F. R. Welch, Shurdington Poultry Farm, Cheltenham.

B. P. (Co. Cork) writes to ask:—"Is there a breed of fowls known as 'bare necks?' If not, what is their real name, and are they pure? From where did they originate? How much oil does it take to run one 100-egg Glevum Incubator for one hatch? How much will it cost to rear a chicken to laying age? Is it true it will cost 6s.? Would it cost as much to rear a light as a heavy breed?"—My correspondent is probably referring to the Transylvanian fowl, known as "Naked Necks." They are said to have originated in the East of Hungary. The first examples were probably seen in this country from 45 to 50 years ago. They had the reputation of being very hardy, free from disease, and good layers of medium size, the cocks weighing 5½lbs. to 6½lbs., and the hens from 4lbs. to 5lbs. There are two varieties, but the white is the most common. I cannot say how much oil it would take to run 100-egg Glevum Incubator for one hatch. Yes, roughly, it would cost about 6s. to rear a pullet to laying age. It would not cost much less for Leghorns, perhaps 6d. or 9d.

B. W. (Wickhambrook) writes that on January 6th he put in a 50-egg incubator, 45 R.I. Red eggs. He thinks the eggs were good, and the result was 25 good, 15 dead-in-shell, and five clears. He followed makers' instructions very carefully. He asks: "Why so many dead-in-shell? He has still 23 very strong, healthy looking chicks. Is 15 out of a possible 40 a bad percentage of dead-in-shell in this season?"—From my replies to correspondents he does not think it was through lack of moisture. He wishes to know whether I think the membranes were too dry. I am afraid he has not sent me sufficient information, and I am not at all in a position to judge without examining the eggs themselves. The percentage of dead-in-shell is high, but whether this was due to the machine, or the method of running I cannot say. Neither does my correspondent say at what stage they died. Everything is called dead-in-shell, from an infertile to an addled egg. I am sorry I cannot help or advise in this matter, as I have not sufficient details to go by.

E. D. B. wants information re scaly leg with which his birds are seriously troubled.—Scaly leg is due to a parasite which is generally found in light and dusty soils, and is more prevalent when ashes are used in the run. It is comparatively rarely found when birds are running on grass land. It is not inherited. The best treatment is to scrub the legs with warm soapy water, and then paint with a two per cent. solution of Izal. This should be done three times on every alternate day. As a rule this treatment is successful. Another effective remedy is to follow the same course, and rub into the legs a mixture of equal parts linseed oil and paraffin, taking care that this does not touch the skin.

R. F. B. writes that his Wyandottes are laying eggs with almost white shells, and he wishes to know whether this is abnormal.—No, it is not abnormal. When birds have been producing heavily for some considerable time, the supply of pigment to the shell is inadequate, and gradually the eggs become lighter in colour. In some strains of White Wyandottes, where there has been an outcross with the White Leghorn, white-shelled eggs occasionally appear, but from my correspondent's letter I judge this is not the case.

POST-MORTEMS.

Capt A. B.—I have returned the Light Sussex pullet to you after cleaning out the abscess and dressing the cavity which extended to the jaw bone, as I could see no reason for killing it, or that it should not recover, although the thickening of the tissues around the cavity may remain more or less permanent. The trouble was, in my opinion, due to some injury, possibly a small penetrating wound caused by a piece of straw, thorn, splinter, etc., and, as is usual in birds, the pus became consolidated. It was certainly not roup, and neither should I say were the other cases of a similar nature that you experienced previously, or otherwise there would have been an outbreak before now. The main difference between roup and these abcesses is that the roup lesions are comparatively shallow, only involving the superficial layer of the mucous membrane, but very firmly attached, and are in reality necrossed tissue cells and pus, whereas in injuries and abscesses the wounds are deeper, the cavities well defined, and the consolidated pus and debris quite easily lifted out, and not adherent to the surrounding tisues. At the same time it is always well to isolate if there is only a suspicion of roup.

A. R.—The post-mortem examination of the W.L. pullet showed that there were no lesions due to disease whatever, in fact she was remarkably healthy and well developed. There was, of course, a fracture of the cervical vertebrae, or rather a dislocation. In the absence of any details as to her behaviour, symptoms, etc., I am at a loss as to how to advise you, but whatever symptoms she may have shown must have been purely functional, as she was organically sound and free from any sign of infectious or other disease.

A. E. H.—The examination of the chicks showed the cause to be acute Coccidiosis; the lesions being unmistakable, and the parasites identified by microscopical examination. One of these birds, however, was also affected with pneumonia of exactly the same type as those previously examined, and although there can be no doubt that the majority of the losses were due to Coccidiosis, it is rather puzzling why the organisms could not be found in the other birds, especially as there is no difficulty about it if they are present. It almost looks as if there were two causes at work, viz., Pneumonia and Coccidiosis, and that it was simply a matter of chance that those only affected with the first-named disease were sent for examination. Sulphur fumes, unless the house or equipment are damp or wet, are useless as a disinfectant, as they depend upon their combination with the water to form sulphurous acid, which does the disinfecting.

I. B.—The post-mortem examination of the cockerel showed that fatty degeneration of the liver was the cause of his indisposition. There is no treatment, either preventive or curative, for this condition, the exact cause of which is unknown, and neither could it have been definitely diagnosed during life.

S.-F.—The post-mortem examination of the chicks showed that they were affected with the pneumonia caused by the invasion of Aspergillus fungus; this fungus grows on the damp materials of all descriptions, food and litter included, and these latter should be regarded with suspicion of being attacked by this fungus, if they show the slightest trace of must or mold. The Aspergillus, while growing, produces countless seeds or spores, which if inhaled by the chicks when scratching, etc., find lodgement in the respiratory tract, and cause inflammation when they again start to grow. Prevention consists of the avoidance of musty litter, etc., and disinfection of the equipment, and although treatment is none too effectual, the following is well spoken of:—Add 2 per cent. cod liver oil to the mash, and dissolve 40 grains of citrate of iron and quinine in every gallon of the drinking water for a fortnight.

Commercial Poultry Farming.

By T. W. TOOVEY.

We are told, and in high quarters too, that there has been a certain decline in the industry. My purpose in writing these articles is to show why this is so, for I believe it to be true, and also to show how I think this decline can be and should be arrested.

I approach the subject rather unwillingly, because I dislike controversy. I am getting old, and want all the leisure I can get, but as one of the old pioneers I feel it is rather up to me to communicate anything I can to help the continuity of the industry. I am not going to talk much about theories, but of what is in actual practise, both here and elsewhere, successfully. I have had twenty-seven years continual experience in what someone has called this alluring industry, and at no time in my career have I had a more sanguine confidence in its success than at the present time.

During my now long business career of fifty years, I have had experience in four different businesses—flour milling, provender milling, general farming, and poultry farming. I have gathered a little moss in them all, but the most difficult one, in which to accumulate it, was general farming, and this was the most highly technical calling of them all. I gave up the general farms in 1921 owing to advancing years, and have confined myself since to the other three. At the present time I am controlling and managing director of the mills, which are of considerable size. I am far more anxious and concerned about the success of the mills, owing to the cut-throat competition prevailing, than I am about the success of the poultry farm, and consider that success in the latter is far more assured than in the former. After this preamble I will now try to get on with my job.

I have in front of me a record of the profits and losses of this farm from 1900 to 1925 inclusive; this like a chart shows the ups and downs experienced, and indicates clearly enough to me that if, like many, I had been dependent on the industry, with no other resources after the original capital had been expended, even if in the light of modern knowledge it had been adequate for the purpose, I should have been down and out long ago. I see that from 1900 to 1910 there was a profit yearly, fairly good for those days, taking into consideration the value of money and the small size of the farm. We then changed on to the large flock and the modern laying house. 1911 to 1913 showed losses; in 1913 the loss was serious. I then gave up the 3,000 birds I was carrying on my general farm, where the loss occurred mainly; 1914 and 1915 showed small profits; in 1916 we made two ends meet with a little over, but in 1917, the worst year in my experience I lost over £1,000. This was mainly due to the economic position caused by the war, feeding stuffs very dear and almost unobtainable, and egg prices were controlled. The tide turned in 1918, and by far the best profit yet made was made. Still this was far surpassed in 1919 and 1920, when really large sums were made, sufficient to recoup me for the previous bad years. 1921 to 1924 were also four good years, giving what I then considered normal profits with very little difference in the amount year by year. Up to the year 1921 I had always sold large numbers of eggs for sitting. Thinking I foresaw with the development of pedigree breeding that it would no longer pay me to continue this branch, I gave it up, although I sold some 60,000 eggs for sitting in 1921. I determined to concentrate on table eggs and table poultry. I have had no reason to regret my decision, as the profits for 1922, 1923 and 1924 exceeded those of 1921, and I had much less worry and trouble. Trying to review my own case impartially, as an object-lesson to others, I can now see that my own bad times—with the possible exception of 1917, and even then the loss should not have been so heavy, possibly none at all—were the result of my inexperience and want of knowledge. By 1918 I had learnt how to manage considerable numbers of poultry successfully when times were normal, and made good and satisfactory profits for several years on end. In 1925 came the great epidemic, and I thought for a time that the end had come. The times were abnormal, and I had not learnt how to meet them. I do not wish to write in any spirit of cocksuredness, but I hope and think the much-needed lesson then received has been appreciated, and, thanks greatly to the help of Mr. Brain, we have learnt how to prevent disease largely, and to control and cure it if it comes again. Still, I think I may take the credit for the new organisation and "lay-out" of the farm, which is a factor of much importance for maintaining the health of the stock and for keeping disease in suppression.

The best evidence I can give are results. The new arrangements came into operation last August, and so well have they worked that to my surprise 1925 will not be listed in the years of losses at all, Although we lost 2,000 hens by roup in addition to the normal losses, and at least 1,000 chickens from roup, we made enough profit to refund the capital loss on the reduced numbers of livestock, all the heavy incidental expenses, and had a small profit of £230 as well.

In the next article I propose, with the Editor's permission, to deal with the technical details and general scheme of management of a modern poultry farm devoted solely to table products.

(Continued at Foot of Column Next Page).

Correspondence—Continued

LIGHT v. HEAVY BREEDS.

To the Editor of "Eggs."

Dear Mr. Newman,—My attention has just been drawn to a letter in "Eggs," of January 20th.

"Heavies produce more eggs when prices are high"—"sic" Mr. Bygrave. Never a "with your leave" or a "by your leave," or, in fact, any room for discussion at all!

Had your correspondent prefaced his announcement with "it has been my experience," or any qualification of the sort, I should not have been tempted to enter the lists. I have not a word to say against the "heavy." I believe the whole question largely boils down into one of inclination. If you like "heavies" best you are likely to do best with them, and vice versa. One does not go out of one's way to inform the successful dairy farmer that if he wasn't a blithering idiot he'd concentrate on producing beef. But when your correspondent attempts to bludgeon home such a bald assertion as that "'heavies' produce more eggs when prices are high"—well, he musn't be allowed "to get away with it!"

I've a house of 206 White Leghorn pullets that have just knocked up an average of 54.55 for the three winter months, November 1st to January 31st, and in this case I am speaking of a true average, and not a culled average—no artificial lighting, and with never, on any account, any attempt at forcing. Can Mr. Bygrave's R.I. Reds or Wyandottes beat it?

When one hears the Leghorn directly attacked "on its own ground," so to speak, viz., as a layer, those of us who have good reason to hold a brief for that gallant little bird can only suspect either the strain or the management.

Lastly, if Mr. Bygrave permits himself to accept the usual dealer's twaddle, such as "no sale for yellow-legged birds" and the like, I've no doubt he may be driven into accepting as little as 1/6 for his Leghorn hens as table birds. Personally I have taken the trouble to secure a few private contracts that bring me in approximately as much for my culled Leghorns as table birds, as he quotes for the sale of "heavies."

I have read with interest Mr. McKenzie's letter in your issue of February 3rd, but what exactly is he out to prove? Is it that the R.I.R. and Wyandotte can be bred to lay as well as the Leghorn? Because, if so, are there any of us doubt it? What one would really like to get at is, how much more did those R.I.R.'s and Wyandottes cost to feed, and, above all, how they'd shape housed in big flocks, 500 birds to the acre, with six inches of perching room each, in mammoth houses, allowing 3½-4 feet floor space per bird, kept more or less intensively (generally more in the sort of winters that we, alas, have to put up with!), and with nothing but dry mash, greens, and grain to lay on—viz., as a commercial proposition?

Sincerely yours,
W. HAYLAND WILSON.

THE MARKETING OF EGGS.

To the Editor of "Eggs."

Dear Sir,—Are there any members of the S.P.B.A. who sell their eggs based on the daily quotations in the press of the London Market? I have been selling mine for some time past at 6d. per 120 above the quoted price for first grade—i.e., two ounces and over. Personally, I do not think this is good enough for guaranteed new-laid first grade eggs, and would like to hear of other members who are selling on the same lines and perhaps doing better. Living 150 miles from London, and having to sell my produce there as far as I can see at the moment, to get a good sound market, it is not easy to keep in touch with market conditions.

Would any reader acquainted with the London (Smithfield) Market write to say what is the type of eggs sold in that market and mentioned in the daily press as first grade. Are they properly graded two-ounce eggs, or are they merely a superior type of mixed eggs?

Yours faithfully,
A. J. POWELL.

HATCHING.

To the Editor of "Eggs."

Dear Sir,—Now that the hatching season is fast starting, a few words to those who are not satisfied with their winter output of eggs will not be out of place. The following remarks are placed solely on White Leghorns, as it is the only breed I have had anything to do with. My advice is, hatch out to the full capacity of your incubators from January to the middle of April and then finish, for to my mind a chick hatched after then is not worth the trouble of rearing and feeding.

Commercial Poultry Farming.—Continued.

That is to say, perhaps, as I think it should be done.

I much appreciated Mr. Tom Carter's criticism of the apex house and his other remarks on modern houses. But I am sorry I cannot accept his vision of the poultry farm to be. I would not undertake to run such a farm for profit even if it were presented to me free, lock, stock and barrel. In the course of my variegated experience, I have had some intensive experience on three different systems, and I don't want any more.

(To be Continued.)

A night feed to the early chicks is beneficial, but not absolutely essential. By this way of hatching you will get a plentiful supply of eggs from July onwards, small at first but gradually increasing in size.

Middle September start lights, just put the lights in at first to get the birds used to them; after a few days start feeding them with a handful of kibbled maize between three or four birds, and mash boxes open; try and gauge the amount of feed that they pick up. Two hours light per night is quite sufficient—7 to 9 p.m. or 8 to 10 p.m. Of course, the most essential part of the business is that they are well housed, roofs absolutely water-tight, floors rat-proof, and a foot of good dry litter. The Leghorn is an industrious bird, and should carry her wings well up into her. She thrives on hard work, but the conditions must be made suitable for her, or else your winter egg basket will be very light. The above is a tried-out system and gives results—winter eggs. Any further advice given or would undertake supervision.

"FIVE YEARS MEMBER."

ANSWERS TO QUERIES—Continued.

"Ancona" (Allesley) has sent three R.I. Red chicks for me to examine them. Examination is impossible. I have been away from home for some days, and I must draw my correspondent's attention to the rules at the top of these columns, that chicks for post-mortem examination should not be sent to me but to our expert on disease, Major Saunders. He does not detail any symptoms in his letter. They were fed on a proprietary feed and proprietary mash, so that I am unable to give him any assistance.

W. H. (Lurgan) sends me a sample of what is called Sussex ground oats. They are not "Sussex" ground oats, but would practically answer the same purpose. The bran is a fair average sample, He wishes to know a good mash for breeding stock. The following would be a good one:—1 lb. bran, 1 alfalfa meal, 4 middlings, 1 Sussex ground oats, 1 Maize Meal, and one fish meal In using dried separated milk he should use this at the rate of 10 to 15 per cent. in the mash. With regard to the two questions he asks me as to two breeders. Of the one to whom he refers to as "A" I do not know his stock. The other is absolutely reliable. As for my opinion on cooling eggs in a Gloucester Incubator. I do not believe in cooling at all, and I agree with him there is no reason for cooling, particularly in a hot-air machine, where there is warm fresh air constantly passing. My opinion is wholly in favour of the ventilated hover. This in answer to a further question he asks.

C. H. M. (Dorset) has sent me 24 eggs. These are part of 240 of which only 39 hatched. My correspondent wishes to know whether it was due to the stock birds or the incubator. He does not give me any information, but the whole of these eggs were addled, and it is too much to assume that the fault was on the part of the stock birds. Something occurred in the incubator of which he is either ignorant, or he has not told me; it is not a question of moisture or lack of oxygen, we can only assume it is one of temperature, and in my opinion these eggs were either exposed to a too low temperature, either before incubation, or at an early period of incubation that the lamp was permitted to go out. Will members who send eggs by rail

(Continued at Foot of Column Next Page).

Poultry Farmers and Income Tax.

With one exception, cases which have been carried before Special and Local Commissioners of Income Tax recently, have been decided in favour of the contention that Poultry Farming is Husbandry within the meaning of the Finance Acts. Last November an appeal against assessment under Schedule D. on the part of Mr. T. B. Grice, of Silecroft, Cumberland, was decided in his favour, and so far as known the Inland Revenue have not appealed against this decision. In another case, that of Mr. W. Nuttall, of Longridge, Lancashire, this appeal was heard on the 5th of April, 1925, at Preston, by the Local Commissioners, and decided that he should be assessed under Schedule B. As an indication of the delays which take place, the Inland Revenue have now appealed against that decision, and is carrying the matter to a higher court.

The most recent cases are those of Mr. Worters, of Uplands Farm, Rotherfield, and Sir Hubert Gough, of Burrows Lea, Shere, both of which parties appealed to the Special Commissioners in London against assessment under Schedule D., and on February 3rd the Commissioners decided in these two cases, except where there was dealing in eggs, that they must be assessed under Schedule B.

It is evident that the Inland Revenue do not accept the important decision given last October in the Edinburgh High Court, which, under ordinary circumstances, would have been accepted as settling this question. The danger to the Poultry Industry is that as in another case where it is probable that there were special circumstances, and the Commissioners decided that assessment must be under Schedule D., the Poultry Farmer has entered an appeal which is evidently what the Inland Revenue is seeking to secure.

The National Poultry Council has been advised by counsel to strongly urge that in the interests of individual poultry-keepers and of the poultry industry at large, no action shall be taken without placing the facts before it, and to recommend what is the best course to adopt. This is most important. An adverse decision in the High Court would mean that all over the country pressure would be put upon poultry farmers to pay on the higher scale, and it would entail heavy expense to contest such claims. The National Poultry Council has devoted an enormous amount of time and effort in defence of poultry-keepers. If the latter are to maintain what would appear to be in accordance with the law of the land, it is essential that all concerned shall act in unison, and thus be able to defeat what evidently is an unjust tax upon the Poultry Industry. Communications should, therefore, be sent to the General Secretary, National Poultry Council, 20-21, Essex Street, London, W.C.2.

Modern Poultry Feeding.

By TOM NEWMAN.

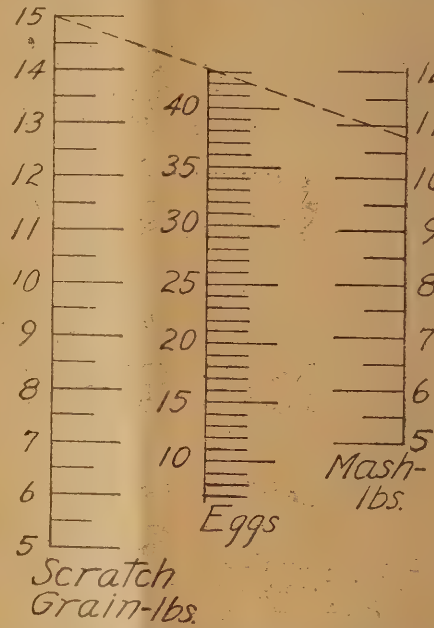
GRAIN AND MASH REQUIREMENTS.

Professor Willard Thompson has been good enough to send me a table giving the grain and mash requirements for egg production of Leghorns, consuming the New Jersey rations during the winter months, as attested by Professor G. W. Hervey, of the New Jersey Agricultural Experiment Station, U.S.A. The figures are based upon a weekly analysis of feed and production records by pens of over 3,000 Leghorn females in their first laying year.

It is difficult to make any comment upon it, as we are not aware of the composition of the New Jersey mash, but what does appear to me to be curious is the fact that the figures are calculated in relation to the seasons rather than in relation to the actual production of the birds.

If we take into consideration the results of the investigation at the New Jersey College—the fundamental facts as quoted—we have (1) known now for some years that we may secure a greater production of eggs by increasing the total consumption of food during the winter months (feeding by artificial light taught us that); since then we have supplemented wet by dry mash and vice-versa, while the trough feeding of grain, which I advised some two years ago in these columns to avert the neck moult and increase production during the winter months, has proved eminently successful. Twelve pounds of grain per 100 birds is a bare 2 ozs. per head, and it is not sufficient for a pullet which is going to spend from 14 to 16 hours on the perch. As I remarked in a paper which I read at Tewkesbury last week, one of the greatest mistakes ever made was the advice to give 2 ozs. of grain and 2 ozs. of mash per bird. The total consumption of a flock depends so much on production. (2) It was found that no increase in the spring period, March to June, in the feeds from amounts naturally desired by the birds themselves is accompanied by a corresponding change in production. The data show that this natural, or most common, consumption of the spring months is 10.7 pounds of scratch grain and 15 pounds of mash daily, while the highest average production during the winter months was secured with 15 lbs. of scratch grain and 10.7 of mash, the position being actually reversed. One would like a few more particulars; longer hours at the mash hopper, and consequently greater consumption, would probably mean a diminished demand for grain. Was any test made of feeding two flocks during these months with the same rations, but different percentages of grain and mash? (3) "In the summer-fall period, July to October, production may be increased by increasing the rate of mash consumption, but no change of production is observed when the amount of scratch grain naturally desired by the birds is exceeded."

Again, so much depends on the constitution of the mash. Over here our mash has generally a narrower ratio than that used in the States, and we find that by increasing the grain ration, more particularly the maize, from May onwards we maintain production and avoid the moult. Professor Hervey's experiment is interesting, but to my mind the real point is to feed to the bodily condition of your stock, and you will generally find that an increased grain ration is advisable when there is any sign of a drop in production.



Influence of Scratch Grain and Mash Consumption on Daily Egg Production in Egg Laying Contests, per 100 Birds.

kindly advise me by post that they have done so, as sometimes they are held up at the railway station unless we are notified, and this causes delay for which I cannot be held responsible.

"Worried" (Knaresborough) writes that he has chicks suffering from leg weakness, and that there is a very high mortality. He sends me full particulars of his feeding, and I can find nothing which would in any way account for his trouble in that respect. He details no other symptoms but leg weakness, and the mortality is high. I suspect this to be a symptom of disease, and not a case of leg weakness due to rickets. He should immediately send some chicks for post-mortem examination. Coccidiosis may be the cause of the high mortality and this wobbling, or it may be brooder pneumonia. So many people, I find, confuse leg weakness as we understand it, which is a ricketty condition due to non-assimilation of the calcium salts, or to unsuitable environmental conditions, with the weakness which is directly due to a diseased state. As a rule with leg weakness, which is induced by a ricketty condition, the mortality is not high, and when a high mortality does occur breeders would be well advised to take it as an indication of some contagious disease rather than leg weakness pure and simple.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

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Cann, R. H., Kempshott Village, Basingstoke.
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Smith, T. C., Newlands, Ratherheath, near Kendal.
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Clyde, R. D., 35, Kirkburn Avenue, Cambuslang.
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Harrington, Mrs. M., Whitehaven, Cooksmill Green, near Chelmsford.
Plumpton, H. W., The Dormy House, Sheringham.
Buck, Miss M., Shipton Bridge Farm, Widdington, near Newport Essex.
Henson, T., 45, Eastfield Road, Peterborough.
Stroud, W. H., 6, Lea Bank Avenue, Kidderminster.
Pilkington, R. W., The Croft, Ormskirk, Lancs.
Dunn A. E., 40, Windmill Hill, Colley Gate, Cradley, Staffs.
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Haire, E., Auchtykernal P.F., Lesmahagow, Lanarkshire.
Doon Poulteries, Ltd., Herbertpur P.O., via Dehra Dun U.P., India.
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Hall, Miss F. L., Peddars, Manor Road, Woodford Bridge, Essex.
Margrave, Miss H., 134, Makkinson Road Clapham Junction, S.W.11.
Crew, T., Hill View House, Clent, Stourbridge.
Hardy, Capt. W., Artillery Lodge, Papplewick Lane, Linby, Notts.
Parker, C. M. C., 44, North Street, Stanground near Peterborough.
Jackson, W. H., Trafalgar P.F., Sexden, Colchester.
David, A. C. R., St. David's, Newtown, N. Wales.
Franey, W. A., "Eastwood," near Barrow-on-Soar, Loughborough.
Smith J., c/o Scott, Third Part Farm, Skelmorlie, Ayrshire.
Williams, Miss M., Toll Bar, Penley, near Ellesmere, Salop.
Spear, Mrs. Ray, Rhode House, Railton's Yard, Clarence Wharf, Newport, Mon.
Hill, Comm. G. M., R.N., Sherbourne House, Cocking Midhurst, Sussex.
Bowen, J. M., Furneaux Pelham, near Buntingford, Herts.
Robinson, L. A., West Ings, Gristhorpe, Filey.
Thompson, Miss W., The Broad Farm, Rockland St. Mary, Norwich.
Coyle Miss S. C., 36, Berkeley Terrace, Charing Cross, Glasgow.
Thompson, W. E., "Knightscroft," Lower Beeding, near Horsham.
Porter, S. J., 11, Ralph Street, Clayton, Manchester.
Des Forges, W., 38, Central Avenue, Hucknall, Notts.
Malcolm, Mrs., Whitmore Chittlehamholt, Umberleigh, N. Devon.
Storrar, J., Glenlair, Pentland Road, Colinton, Edinburgh.
Stanley, W. E., Eastwell Lodge, Melton Mowbray, Leicester.
Cayley, A., Carham Hill, Cornhill-on-Tweed, Northumberland.
Ashworth, J. E. Central Buildings, Stacksteads, near Bacup.
Wright, H., Spring Bank, Stacksteads, near Bacup.
Kendrick, F. H., Worcester Road, West Hagley, Worcester.
Hardy, C., Sutton Lane, Sutton Bonington, Loughborough, Notts.

THE PRESTON AND DISTRICT U.P.S. LAYING TEST.

Report for Third Month.

Figures are Eggs and Points respectively.

Section 1. White Leghorns.—R. Beesley, 130, 1064; P. Williamson, 140, 962; G. H. L. Armstrong, 117, 867; C. Morey, 124, 773.

Section 2. White Wyandottes.—H. Sutton and Sons, 166, 1211; G. H. L. Armstrong, 125, 992; J. Rainford, 131, 984; H. Holden and Sons 127, 925.

Section 3. R.I. Reds.—R. Moon and Son, 151, 1211; J. Basnett, 148, 1052; J. Cobham, 138, 1043; H. Booth, 122, 962.

HARPER-ADAMS' AGRICULTURAL COLLEGE, NEWPORT, SALOP

POULTRY LAYING TRIALS, 1925-1926.

Report for the Third Period.

The third month of the trials expired on 23rd January. There have been no noteworthy features in the month's progress, and the bill of health has been satisfactory under fluctuating weather conditions.

Production has increased, an average of 14.6 eggs per bird being the result of the month's output from the poultry sections. The duck average has also improved, being 18.5 eggs per bird. Over two eggs per bird in this figure, however, are third grade.

The pen positions have again varied in some sections and as the value records in several instances show only a small difference between the pens, further changes are probable.

The following is a summary of the leading positions at the end of the third period:—

SUMMARY OF THE LEADING PENS.

Figures are Total First and Second Grade Eggs.

CHAMPIONSHIP TRIALS.

Section 1. Light Breeds.—Tom Barron (W.L.), Catforth, 527; Frank Snowden (W.L.), Keighley, 522; F. A. Welch (W.L.), Cheltenham, 516; G. B. Metcalfe (W.L.), Lechlade, 498.

Section 2. Heavy Breeds.—E. Watson (W.W.), Colne, 609; Tom Barron (W.W.), Catforth, 526; G. B. Metcalfe (R.I.R.), Lechlade, 504; Capt. D. W. Gunston, M.P. (W.W.), Reading, 493.

SMALL FLOCK TRIALS.

Section 1. White Leghorns.—Miss Helen Baylis, Stratford-on-Avon, 321; Capt. J. Thompson, Shrewsbury, 314; Lieut.-Colonel A. G. Eden, Bracken, Cranswick, 303; G. Keith Simmons, Honiton, 292; R. H. Fryers, Keighley, 287.

Section 2. White Wyandottes.—Dr. A. Everson Harrisson, Daventry, 370; C. E. D. W. Freeman, Anglesey, 334; G. Keith Simmons, Honiton, 347; Frank Snowden, Keighley, 331; S. and T. Greenall, Grantham, 322.

Section 3. Rhode Island Reds.—C. W. S., Ltd., Manchester, 333; W. Mayor, Leyland, 295; Miss C. E. Roads, Bletchley, 295; R. Green, Preston, 302; K. A. Crawford, Dilham, 271.

Section 4. Light Sussex.—F. R. Welch, Bewdley, 330; F. Rossall-Sandford, Shrewsbury, 304; A. Hughes, Malpas, 304; Marcus W. Slade, High Wycombe 292; Capt. A. A. Plimpton, Beverley, 286.

Section 5. Black Leghorns.—R. A. Fawssett, New Radnor, 281; W. A. Lansley, Whitchurch, 270; R. Rodwell, Nelson, 252; S. Street-Porter, Ely, 237.

Section 6. Any Other Light Breed.—W. Hamnett (An.), Blackpool, 302; H. Lynden Lemon (Bl. Br.), Devizes, 269; Dr. R. B. Reed (An.), Colchester, 268; Colonel S. Sandbach (Bf. L.), Abergele, 236.

Section 7. Any Other Heavy Breed.—Miss P. Mills (Bf. Rks.), Bishop's Castle, 334; Capt. A. A. Plimpton (Bf. Rks.), Beverley, 329; F. R. Welch (Bf. Rks.), Bewdley, 285; Mrs. Drew (Bf. Rks.), Basingstoke, 275.

SINGLE BIRD TRIALS.

Section 1. White Leghorns.—F. G. Mansell, Aldridge, 65; Rev. H. W. Bush, Bath, 65; Tom Barron, Catforth, 61.

Section 2. White Wyandottes.—S. and T. Greenall, Grantham, 69; Tom Barron, Catforth, 68; Frank Snowden, Keighley, 68.

Section 3. Any Other Light Breed.—K. A. Crawford (W. Br.), Dilham, 58; W. H. A. Heald (Bl. L.) Hellingly, 50.

Section 4. Any Other Heavy Breed.—A. Hughes (L.S.), Malpas, 75; Miss M. Lawrence (R.I.R.) Glos., 71; C. W. S, Ltd. (R.I.R.), Manchester, 65.

Duck Section.—S. E. S. Burnett (K.-C.), Arbroath, 375; S. Ward (K.-C.), St. Neots, 343; R. A. and A. M. Johnson (W.R.), Chalford, 352; H. S. Godsmark (W.R.), Ashford, 350; G. H. H. Simmons (K.-C.), Brimscombe, 341.

CLITHEROE AND DISTRICT UTILITY AND FANCIERS' POULTRY SOCIETY.

Fourth Monthly Report.

In the first 12 weeks eggs over 2oz. receive 9 points; 1¾oz to 2ozs., 8 points; under 1¾oz., 6 points. In the second 12 weeks, over 2ozs., 7 points; 2ozs., 6 points; under 2ozs., 4 points.

Heavy Breeds.—J. R. Jackson, Downham (W.W.), 659 pts.; P. Warren, Entwistle (R.I.R.), 629; A. Snowden, Crosshill (W.W.), 614; T. Dobson, Inglewhite (B.O.), 568; L. Infanger, Grindleton (W.W.) 555; J. H. and W. Brayshaw, Keighley (W.W.), 550; W. H. Bradshaw, Preesall (W.W.), 534; W. Boulton, Stoke-on-Trent (L.S.), 526; F. C. Tomlinson, Sleaford (L.S.), 523; J. H. Heap, Wimslow (W.W.), 522.

Light Breeds.—Miss Greenwood, Worston (W.L.), 574; T. Bickerstaff, Clitheroe (W.L.), 491; P. Warren, Entwistle (W.L.), 466; Major Aspinall, Pendelton (W.L.), 390; T. Dobson, Inglewhite (Anc.), 387; R Beesley, Lytham (W.L.), 386; Jowett and Sons, Scarborough (W.D.), 380; F. Gregson, Bolton (Anc.), 354; F. Gregson, Bolton (Anc.), 353; W. R. Porrett, Cornwall (W.L.), 353.

Twenty-six eggs not recorded. Total eggs (112 days), 5,669; 172 birds. Five birds dead.

WORCESTERSHIRE LAYING TEST.

Report for Third Month (Leading Pens only).

Section 1. White Leghorns (Five Birds).—W. Pound, 226 pts.; Worcs. P. F., 212; F. R. Welch, 192; Col. Hancock, D.S.O., 148.

Section 2. White Wyandottes (Five Birds).—Mrs. Edmondson, 271 pts.; W. F. Morris, 266; G. E. Hanley, 239; W. H. Hawkes, 186.

Section 3. A.O.V. Light Breed.—R. M. Voce, 187 pts.; Capt. Churchill, 154; B. Lloyd, 142; Capt. Churchill, 110.

Section 4. A.O.V. Heavy Breed.—E. Owen 217 pts.; F. R. Welch, 210; W. P. Drew, 197; F. H. Collins, 163.

Section 5. A. V. Heavy Breed (Singe Bird).—J. Norlege, 60 pts.; J. Smith, 56; W. R. Mitchell, 52; H. J. Veeger, 52.

Section 6. A.V. Light (Single Bird).—J. Rutter, 53 pts.; Capt. Boyle, 39; F. Heydon, 32; M. G Kent, 30.

Section 7. A.V. Pure Breed Duck (Single Bird).—Worcs. P.F., 38 pts.; Malvern Ped. P.F., 13; J. E. Loxley, 8; Miss Hancock, 8.

LAINDON LAYING TEST.

Third Report.

Section 1. Light Breeds (Five Pullets).—Rowland Cook (W.L.), 196 eggs; L. J. Willis (An.), 144; Miss N. Grubb (W.L.), 140. Monthly Certificate: H. Maycock.

Section 2. Heavy Breeds (Five Pullets).—L. A. Potter (R.I.R.) 194 eggs; Mrs. D. Fowler (R.I.R.), 148; Rowland Cooke (R.I.R.), 115. Monthly Certificate: L. A. Potter.

Section 3. Light Breeds (Single Birds).—A. Fox (W.L.), 43 eggs; S. Stock (W.L.), 32; G. L. and H. B. Gibson (W.L.), 29. Monthly Certificate: A. Fox.

Section 4. Heavy Breeds (Single Birds).—J. A. Hawarth (W.W.), 67; J. Eccles (W.W.), 57; Miss N. Grubb (R.I.R.), 53. Monthly Certificate: J. H. Hawarth.

Section 5. Gift. Any Breeds.—W. Dillenz (R.I.R.), 62 eggs; E. Maybred (R.I.R.), 49; Miss N. Grubbe (R.I.R.), 48. Monthly Certificate: W. Dillenz.

First-Class Certificate for Month.—J. A. Hawarth, 23 eggs.

BUCKS COUNTY EGG LAYING TRIALS.

Results to End of Third Period.

Figures are Eggs and Points respectively.

Section 1. Single Bird. Heavy Breeds.—Miss L. Hiorne (W.W.), 39 398; W. A. Blake (Aus.), 41, 374; A. E. Ford (W.W.), 33, 361; A. L. Higby (W.W.), 22, 209; Miss R. E. Lines (W.W.), 17, 161; H. Poulton (W.W.), 12, 120.

Section 2. Light Breeds (Single Bird).—Capt. C. E. May (W.L.), 21, 218; Mrs. Burgess (W.L.), 21, 197; A. L Higby (W.L.), 16, 190; Miss Tompkins (W.L.), 16, 167; Capt. N. P. Doyle (B.L.), 14, 132; L. C. Line (W.L.), 12, 118.

Section 3. Three Birds (Heavy Breed).—Capt. C. E. May (R.I.R.) 126, 1470; G. and T. Rowe (W.W.), 130, 1334; Capt. C. E. May (W.W.), 83, 804; E. Davis (W.W.), 78, 706; P. G. Lewis (W.W.), 78, 697; Major Tubbs (W.W.), 49, 467.

Section 4. Three Birds. Light Breed.—Capt. Bewicke (W.L.), 59, 579; G. W. Hampton (W.L.), 50, 538; G. and T. Rowe (W.L.), 46, 463; A. E. Ford (B.L.), 39, 390; P. G. Lewis (W.L.), 41, 387; E. Davis (W.L.) 29, 353.

Section 5. Five Birds (Heavy Breed).—A. E. Ford (R.I.R.), 99, 1104; H. S. Wood (W.W.), 81, 817; Major Kingscote (R.I.R.), 65, 745; Major Kingscote (W.W.), 37, 342; Major Caldwell (W.W.), 15, 130; Miss E. C. Roads (R.I.R.), 4, 80.

Section 6. Five Birds (Light Breeds).—Capt. Doyle (W.L.), 66, 665; A. E. Ford (B.L.), 45, 467; Major Kingscote (An.), 47, 429; Major Kingscote, 32, 319; R. L. Keene, 1, 10.

Section 7. Three Birds (Heavy Breeds). — Haddon Emeney (W.W.), 87, 1001; A. E. Ford (W.W.), 99, 951; Haddon Emeney (R.I.R.), 86, 856; H. Sidebottom (W.W.), 72, 776; Major Tubbs (W.W.) 83, 675; Mrs. D. E. Greenslade, 52, 618.

Section 8. Three Birds (Light Breeds).—Mrs. D. E. Greenslade (W.L.), 117, 1291; J. A. Howarth, 85, 813; A. E. Ford (W.L.), 25, 335; Haddon Emeney (W.L.), 32, 352; Sir C. McGrigor (B.Br.), 34, 325; F. G. Mansell (W.L.) 19, 225.

Australorps.—W. C. Crossland, 69, 756; C. S. Roscoe, 53, 593; J. J. Hetherington 44, 473; Mrs. Jackson, 41, 419; Mrs. Wienholt, 39, 411; A. F. Smith, 31, 295.

Pile, Duckwing, and Cuckoo Leghorns.—Lucas and Power (C. Leg.), 20, 213; Standean P. Farm (C. Leg), 21, 199; Mrs. Parke (C. Leg.), 5, 44; Mrs. F Bunker (D. Legs.), 5, 40; S. Bertram (C. Legs.), 3, 32; H. Brazier, (D. Legs.), 3, 28.

White La Bresse.—Mrs. Kingscote, 95, 959; G. Fox 65, 721; Sir C. McGrigor, 64, 658; Mrs. Parke, 50, 649; Mrs. Kingscote, 40, 387; Mrs. Kingscote, 34, 352.

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Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 12th FEBRUARY, 1926.

GRAIN AND FEEDING STUFFS. — Fair supplies of British wheat have met a variable trade at the different markets, prices being slightly lower on the week at London and Bristol, and 2d. per cwt. higher at Liverpool. The average quotation is, however, unchanged at 11s. 11d. per cwt. Imported wheat generally sells at increased rates. Home-grown barley is in little demand, and cheaper at Hull and London and imported, which also meets a dull trade, is easier at several centres. English oats are in fair supply, and, with a poor demand, prices have declined at London and Hull. Imported oats are quiet and cheaper at Bristol and Liverpool, while recent quotations are mostly maintained at other markets. Maize is more freely offered at lower prices, Argentine averaging 7s. 6d. per cwt., as compared with 7s. 9d. last week.

Milling offals and meals are generally in quiet demand, and both bran and coarse middlings are cheaper, the former averaging about £7 5s. and the latter £7 9s., as compared with £7 9s. and £7 13s. per ton respectively, in the previous week. Barley meal and maize meal are also reduced. Oil cakes meet a limited trade, but linseed and cotton seed cakes generally sell at recent prices, except at Hull, where reductions of 2s. 6d. to 5s. per ton are recorded.

MILLERS' OFFALS.—Bran (British), Bristol: £7 15s; Hull, £7 2s; Liverpool, £7 10s; London, £6 15s. Broad bran: Hull, £8 12s.; London, £8 12s. Middlings:—Fine (Imported): London, £8 5s. Coarse (British): Bristol, £8 2s.; Hull, £7 5s.; Liverpool, £7 10s.; London, £7. Pollards (Imported): Bristol, £6 7s.; Hull £6; Liverpool, £6 2s.; London, £6 5s. Rice Bran: Bristol, £7 5s.; Liverpool, £6 15s. MEAL.—Barley Meal: Bristol, £8 17s.; Hull, £9 10s.; London, £9 15s. Maize Meal: Bristol, £9 10s.; Hull £8 10s.; Liverpool, £8 17s.; London, £9 10s. Maize Meal (S. African): Bristol, £9; Hull, £8; Liverpool, £7 17s.; London, £8 5s. Maize Germ Meal: Hull, £8 15s.; London £8 5s. Maize Gluten Feed: Bristol, £10 10s.; London, £9 10s. Locust Bean Meal: Bristol, £9 15s.; Hull, £10; Liverpool, £9 10s.; London, £9 12s. Bean Meal: Bristol, £13 10s.; Hull, £11 12s.; London, £12 5s. Fish Meal: Bristol, £21 10s.; Hull, £20 10s.; Liverpool, £19; London, £19 10s.

EGGS AND DEAD POULTRY.

Decreased supplies of British and imported new-laid eggs have resulted in an all-round advance for these classes. The cheaper descriptions of eggs are still fairly plentiful at late rates, but chief attention centres in the best selections. In the dead poultry section, good quality chickens and young ducks are readily saleable, but otherwise little interest is shown, although last week's figures are maintained.

Week-end prices.—Eggs (per 120): British, 23s. 9d., 20s.; Irish, 21s. 9d., 20s. 9d.; Danish, 22s., 21s. 3d.; Dutch, brown, 23s. 6d., 22s. 6d.; Dutch, mixed, 21s. 6d., 20s. 6d.; French, brown, 22s. 9d., 21s. 9d.; French, mixed, 19s., 18s. 6d.; Belgian, 20s. 9d., 20s.; Italian, 18s. 6d., 17s. 6d.; Egyptian 9s. 6d., 9s.; Russian, 14s. 6d., 13s. 6d.; Chinese, 12s. 9d., 9s.; Australian, 16s., 15s.; Argentine, 14s., 12s. 3d.; Californian, 15s., 14s.; Polish, 14s. 6d., 13s.; South African, 15s. 6d., 15s.

Dead Poultry (per lb): Fowls—Surrey, 1s. 8d., 1s. 6d.; Irish, 1s. 3d. 1s. 2d.; Others, 1s. 5d., 1s. 2d.; Ducks, 1s. 6d., 1s. 3d; Geese, 1s. 3d., 1s. 1d.; Turkeys, 1s. 7d., 1s. 4d.

EGGS.

Per Doz.—Ashford: First, 2s. 3d.; Second, 2s. Birmingham: First, 2s. 4½d.; Second, 2s. 3½d. Bridgwater: First, 2s. 5d.; Second, 2s. 2d.; Chelmsford: First, 2s. 4¾d.; Second, 2s. 2½d. Doncaster: First, 2s. 6d.; Second, 2s. 4d. Dorchester: First, 2s. 2d.; Second, 2s. 1d. Exeter: First, 1s. 11d.; Second 1s. 10d. Hereford: First, 2s. King's Lynn: First, 2s. 3d.; Second, 2s. 1d. Llandilo: First, 2s. 4d.; Second, 2s. 3d. Mold: First, 2s. 1d.; Second, 2s. Montgomery: First, 2s. Newport (Mon.): First, 2s. 2d.; Second, 2s. 1d. Norwich: First, 2s. 5d. Oswestry: First, 2s. 1d.; Second, 2s. Penzance: First, 1s. 7d.; Second, 1s. 6d. Saffron Walden: First, 2s. 4¾d.; Second 2s. 1¼d. St. Ives (Hunts): First, 2s. 6d.; Second, 2s. 4d. Salisbury: First, 2s. 1d.; Second, 1s. 11d. Skipton, First, 2s. 3d. Truro: First, 1s. 7d. *Carlisle: First, 2s. 3d. *Derby: First, 2s. 6d. *Ipswich: First, 2s. 3d.; Second, 2s. *Lincoln: First, 2s. 4d. *Shrewsbury: First, 2s. 4d.; Second, 2s. *York: First, 2s. 9d.; Second, 2s. 8d.

FOWLS.

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(Continued at Foot of Next Column).

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, February 17th, 1926.

Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscription to "EGGS," 12s. 8d. per annum; 6s. 4d. for six months, 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick, Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

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A DEPOSIT SYSTEM has been adopted for advertisements, and Advertisers are asked to make full use of same. When remitting direct to the Editor on deposit, the full amount of purchase money should be sent, and six penny stamps extra to cover cost of acknowledgment of same. Cheques should be made payable to the Editor and sent direct to The Beeches, Rudgwick, Sussex.

EGGS.

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ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. — R.I. Reds (first pens headed Cockerels direct Boucher), Runner and Khaki-Campbells. Eggs, Chicks, and Stock Birds. List free. Satisfaction insisted on.

Eggs for hatching. Rothschild's Light Sussex, Cam's White Wyandottes, Measures' Rhode Islands, Schimnel's Barnevelders, Hunter's Black Leghorns, Barron's White Leghorns; all direct strains; 6s. dozen; 45s., 100, by return, carriage paid. — Mrs. Porter, Dishley Grange, near Loughborough.

Eggs for hatching from good Utility Stock; various breeds; moderate prices. Please write for price list.—Arle Poultry Farm, Cheltenham.

A. A. Peake, M.S.P.B.A., Pedigree P.F., Hilderstone, Staffordshire. White Wyandottes (Registered); Rhode Island Reds, tested L2. Stock Birds. Sittings.

P. B. Adams, East Franklyns Poultry Farm, Hayward's Heath. Sittings, 13s. 6d.; Special Pen, £1 1s. Rhode Island Red, Red Sussex, Light Sussex. Black Leghorns.

Sittings of Buff Rocks, also Light Sussex, from carefully selected birds bred for stamina, type and productiveness; 5s. for 15, unreplaced. I have never had disease on my farm.—Lea, Tenoaks, Ringwood.

BRITISH COLUMBIAN

White Wyandottes, imported direct; large eggs and stamina; winner several contests. Specialist 12 years. Mating List. —Read, Hutton Poultry Farm, East Grinstead, Sussex.

H. D. SIMMONDS, M.S.P.B.A.,

The Abbey, Thorpe-le-Soken, Essex, regrets he is unable to accept any further orders for White Wyandotte Eggs this season, owing to exceptional demand. Please book early for 1927.

WHITE LEGHORN EGGS FOR HATCHING.

None under 2ozs. 85 per cent. fertility guaranteed; Hanson, Bennet and Pike strains; mated to cocks and cockerels direct from the Misses Ransford, Pens VI. to X. All breeding stock on virgin soil. Inspection invited. 6s. a sitting; £2 a hundred; carriage paid.—Apply, Instow Poultry Farm, Langton Matravers, Dorset.

DO YOU REMEMBER

My Advertisements last season. Stock better than ever. This season's prices: 40s. per 100; £18 per 1,000. Guaranteed my own produce Reliable and genuine. Special prices, Mammoth's. Carriage paid.—Webster, S.P.B.A., Regent Poultry Farm, Heyhouses, Lytham.

LIGHT SUSSEX EGGS.

Hatching Eggs; separate pens; 40s. per 100.—Rectory, Stokeclimsland, Cornwall.

75 Per Cent. HATCH GUARANTEED.

If less hatch, all eggs returned replaced free, whether infertile or not. I have confidence in eggs from my stock. Trap-nested White Leghorns, with records 200 to 250 pullet year, and 2oz. eggs within two months laying. Also Rhodes, Light Sussex, Silkies, Exhibition Rhodes, and Black Orpingtons. 10s. dozen, or 7s. 6d. dozen, no replacements. Inspection invited. — Geo. Howard. Sperrin Poultry Farm, Folley Road, Stotfold, Baldock.

WHITE WYANDOTTES.

The Sunnycroft strain have been bred on scientific lines, and trap-nested for fourteen generations. Eggs, 10s. and 7s. 6d. dozen.—Fred W. Wait, Sunnycroft, Burton Joyce, Notts.

EGGS.

FOR SALE.

Light Sussex. Most select flock in E land; guaranteed free B.W.D. Size, ty colour, stamina; winter layers combin Eggs, 10s. 6d. dozen (average 29ozs.); 7 100, replaced. Tip top stock; mated pe on sale. Also Indian Game-Sussex Cr Eggs; absolutely best table cross know 25s., 50; 45s., 100, replaced.—Fredk. Paint Corfe Castle, Dorsetshire.

Send for a Sitting of my Reliable L. 5s. 9d. for 12. — Scott, Ortonwatervil Peterborough.

Best White Leghorns Eggs; 6s. 6d. do no replacement. Cash with order, ca riage paid. Name your nearest station A. Helliwell, Poultry Breeder, 4, We Parade, Mytholmroyd, Yorks.

Eggs for hatching. L. Sussex, Leig Rothschild; hen's records 180-220; R.I Hens, records 200-263, mated to Bouche sire from 282 dam. All birds trap-nest Free from disease; 7s. 6d. for 15. — Jone Coldblow, Bonnington, Ashford, Kent.

Light Sussex and Rhode Island Red Sitting Eggs from 12s. 6d. doz., infertil replaced; Chicks double. All breedi stock trap-nested. Mating List on applic tion.—J. O. Widdows, Kingsbury Far Rotherfield, Sussex.

Orders now being booked for Sittin from my prize-winning Utility White Le horns and White Wyandottes; 15 eggs; replacements; 10s., carriage paid. — Hi Brentwood, Marple.

White Leghorn Hatching Eggs, fro selected Utility Stock; 7s. 0d., 15; 42s., 10 —Blake, "Bozanti," Westbury, Wilts.

LIGHT SUSSEX £2 PER 100.

Eggs from large L2 hens; mated to Coc erels from 235 2½oz. egg hen; 25s., 50; 7s 12, delivered, unfertiles replaced.—Part culars all pens—
ORWELL P.F., LEVINGTON, IPSWICH

BARNEVELDERS.

Eggs for Hatching; 8s. 6d. dozen.—Mr N. Wilkinson, Farnham, Saxmundham Suffolk.

SALMON FAVEROLLE.

Eggs for hatching from pure-bred birds 7s. 6d. doz., U.R.—Oyler, Brabourne Lee Kent.

LARGE BROWN EGGS.

Try my R.I.R.'s mated Baldwin Cock erels, also White Wyandottes and Whit Leghorns; good laying strains; 7s. 6d dozen, carriage paid.—Flower, M.S.P.B.A Brockhills, Hordle, Hants.

WHITE WYANDOTTE EGGS.

From hens with records 175-249 and thei daughters, mated to males from 288, 257 249-egg hens 7s 6d. for fifteen; no re placements. All eggs 2ozs or over.—Jones Kirkland House, Blacon, Chester.

GOLD MEDAL STRAIN.

White Leghorns, winners of Nationa Laying Test Section 2, 1925. Booking Sittings of Eggs; 15s. dozen.—Bingley, Balsham Manor Farm, Cambridge.

WHITE WYANDOTTES.

Six Hens, records 205 to 231 in pullet year direct from Mrs. Alec Wilson, mated t special Baldwin cock. Eggs, 10s. 6d. per doz. Orders booked.—Martin, "Summerhaye," Milford-on-Sea, Hants.

35s. PER HUNDRED.

6s., 8s., 15. Red, Light, Speckled Sussex, Buff Rocks. — Major Buckland, Stelling, Canterbury.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, FEBRUARY 24th, 1926.

Editorial.

THE INTENSIVE SYSTEM.

By TOM NEWMAN.

(*Continued from Page* 98).

In some districts, and particularly in low-lying ones, the losses from Gapes are very heavy, and where large numbers of chicks are to be reared it is a most serious problem. It is very difficult to rid the soil of this pest, but of course it would not occur with chicks reared intensively. Now these are three great advantages which I should expect to result in a greatly decreased mortality from intensively-reared chicks, viz.: Losses from exposure, from Coccidiosis, and from Gapes, not to speak of losses from foul ground and from drinking from filthy puddles of water. I will present the other side of the case presently.

Now we come to the adult birds. Take the average semi-intensive commercial egg farm, with its 400 birds to the acre. For six months of the year they are on one half acre, and when that is being rested they are on the other. In less than a month 400 birds will denude half an acre of ground of anything which will be of value as animal and vegetable life. Then what is there left? Think of that filthy patch immediately in front of the house, foul with the birds' excreta, of the puddles of filthy water there from which they drink. Watch them if there is a few hours' sunshine in the winter—see how they will congregate there, in what must be a veritable hot-bed of disease. Can you say that, with such a system as this, there is any great advantage over the intensive system pure and simple? Does it appeal to you as commonsense to believe that the health of the birds is any the better on that crowded half acre during the winter months than it would be on the intensive system? I can prove to you that egg production would not be nearly as good.

Now I must not paint too rosy a picture. I am not come here to convert you to the Intensive System, but just to interest you and get you to think it over, and help us in any investigation we may carry on. So we will now do with the other side. First with the rearing. I anticipate the greatest trouble would be with leg weakness, and I do not want in the least to minimise the difficulty. It is a big one, but not insoluble in view of later knowledge; we will return to it later.

The second trouble would be the danger of an outbreak of toe-picking, which might result in cannibalism, especially in a sunny spring, if precautions were not taken.

We cannot dismiss this lightly, it is something for which we must be prepared.

Dealing with adult stock. The first question will be the housing, and I will endeavour to describe to you the house we have in use on the Experimental Farm at Rudgwick, later; secondly, there is the litter; thirdly, the possibility of outbreaks of feather-plucking, egg-eating, etc., and last, but not least, the important question of feeding.

Now let us deal with these difficulties; first, with Leg Weakness. We have discussed this many times. It has been a big problem for years, but I think we can say fairly definitely now that it is a ricketty condition induced by the inability of the chick to properly assimilate the lime salts through lack of sunshine and fresh air. Science has taught us that common glass will prevent certain sun rays, known as the ultra-violet rays, from having that tonic effect on the skin which produces the necessary increase of phosphorus and calcium in the blood; and this we now know to be the chief cause of a ricketty condition. We are all well aware that leg weakness is far more prevalent in the early months of the year than in the late spring and early summer. We now know that there is a glass procurable which will admit these rays. In any case, we are aware of the cause of the trouble, or the main cause of it, and, without going to the extreme, and fitting the whole front of our brooder houses with quartz glass, which would probably be a very mistaken policy, we can make use of this discovery of the scientist to the extent necessary for our purpose. Further, it has been discovered that the addition of Cod Liver Oil to the mash will assist in the better assimilation of the calcium salts and phosphorus, and will do much to prevent leg weakness. We have proved that on many occasions during the last two years 2 per cent. Cod Liver Oil added to the mash has been a successful treatment when an outbreak has occurred. So that I venture to think that one of the greatest difficulties of rearing chicks intensively has been overcome.

We now come to toe-picking. This is a vicious habit which causes a heavy loss if not checked in time. It is far more prevalent in bright sunny springs than in a dull cloudy one, and I remember that in 1921, when we had so much sunshine, that many most serious outbreaks occurred, involving the loss of hundreds of chicks on some farms. It is induced by the habit of the chick pecking at anything bright, and is far more troublesome with the yellow-legged breeds than with the white. Indeed, it seldom occurs with the latter, unless the chick's leg is torn in wire or injured in some such way. The best method of prevention is to litter the floor with clean straw chaff, or blue-wash the windows of the brooder house, and the addition of sulphate of iron to the drinking water is also helpful when an outbreak occurs. So that is not an insuperable difficulty as far as intensive rearing is concerned. I do not think I have overlooked any further troubles with chicks which would not happen under any other system of rearing, and you must appreciate that with the intensive system we avoid that exposure to cold and damp, and to foul ground, which causes such a high mortality. At the same time we have to admit that there is the loss of the natural food which is very difficult to supply, but of that later.

Now we will deal with the adult stock, and first with the housing question. Last year, as you know, the S.P.B.A. carried out an experiment on intensive lines. It was a great success. Of the three hundred chicks involved, the mortality was only 4 per cent. and 1 per cent. of these were due to accident. There was a slight outbreak of leg weakness, which was quickly checked by the administration of Cod Liver Oil. The pullets came early into production, have laid uniformly well; they are as healthy, vigorous and well developed as you would wish to see. I have sixty of them at Rudgwick now. I do not think the design of the house which was described in the Register was all that could be desired; that is self-criticism, and I am much better satisfied with the one we have at Rudgwick now. One thing we discovered—that is, that intensively-kept birds must be protected in some way when there is a heat wave, such as we experienced last summer; in spite of the fact that the house faced south-east and the birds were never exposed to the full blaze of the sun, they suffered terribly—got out of condition, and developed bad colds, which resulted in a large number of them moulting. Had we not taken them in hand quickly, the trouble might have been really serious. I think it is a mistake to face an intensive house due south, and also to have too much glass in the front; we want light by all means, but too much glass is fatal.

The house which we have built at Rudgwick is 70 ft. x 10 ft.—span roof, 7 ft. to ridge, and 6 ft. to eaves; the front is boarded up 3 ft., and there is 2 ft. 6 in. of glass—one-half of this is a fixture, and the other half opens inwards on the louvre principle. As we are using this for experimental purposes, it is divided into seven sections, each 10 ft. x 10 ft., which will comfortably accommodate 25 birds, outside nest-boxes, and there is glass at the back of movable frames under the dropping boards. In spite of all the severe weather we have had, there has not been the slightest trouble with the litter, which has kept perfectly dry from the time it was put down, and which will last for some time yet. This I attribute to the excellent ventilation. As far as our present knowledge goes this type of house, with certain modifications, is the most suitable for our purpose; we shall learn more as we go further.

Now we have to deal with the litter, and this is no easy matter. It was one of the causes of failure in the old days; damp litter is fatal, the constant renewal costly and laborious. The practice of throwing dry litter on the damp without removing it is a bad one. The litter develops mould, grain thrown in it becomes mouldy, and so we get a very common disease known as aspergillosis. You will always have damp litter in a badly-ventilated house. One possible way of overcoming it is ventilation at floor level, but one of the chief causes is overcrowding. You will often see it is written that four square feet per bird is correct for heavy breeds, and three, sometimes 3½, for light breeds. This is not right. If you are going to keep your litter dry the minimum amount of floor space per bird should be four square feet, whether for light or heavy breeds. There is no falser economy than attempting to squeeze 60 birds into a house intended for 50.

With regard to the vices I have mentioned, feather-plucking is usually caused by idleness. It may become very serious if not checked. The best thing to do would be to turn the birds out on to free range, but this is not always possible. Failing that, the only way when an outbreak occurs is to smear the feathers of the birds with something nauseous, such as bitter aloes mixed in lard, and add sulphate of iron to the drinking water. Of course prevention is best, and in a well-lighted house with clean dry litter, and the birds kept active, there is not much likelihood of an outbreak. As for egg-eating, if the nests are placed in the right position there will not be much fear of it, and in any case it is not peculiar to the intensive system.

Now we come to the greatest problem of all. I am referring to the feeding. We must realise that we have to provide as far as our knowledge will permit, everything that is essential for health and production, and, moreover, economic considerations must enter into it. That is to say, you may easily pay too high a price for a constituent in the food believed to be essential, and conversely regard as costly something which is essential. I am practically certain that we may leave the vitamins to take care of themselves, and concentrate the whole of our attention on the mineral salts, particularly the calcium salts and iron. In certain months of the year, when green food is plentiful, there will be no difficulty, but, when this is scarce or unprocurable, we should not find the usual substitutes, alfalfa meal or clover meal sufficient, and we must supplement the ration. In the Wellingham experiments an ample supply of fresh green food was given the chicks from the first, principally lawn clippings. When these were exhausted a salt mixture was added to the mash which includes alfalfa meal.

On this the health of the birds has been all that can be desired, but we have also thought it desirable to add iron. When we have made a little further study of this question of the mineral salts, I do not think the feeding of the intensively-kept birds will present any serious difficulty. We want to know, for example, if alfalfa meal and fish meal will supply all the lime salts that are necessary. It is possible they will. We know that pure meat meal or blood meal will not; therefore we should not feed them.

Now I must not keep you any longer. It is possible you will say that this problem of intensive poultry-keeping does not affect the industry as a whole. It is one for the small poultry-keeper. That will be a grave mistake; it affects many hundreds of men who are striving to make a living from their fowls, and it profoundly affects us in our struggle to keep out the foreign egg. Just think for a moment of the number of people who are trying to make a living from keeping poultry, on small holdings of three or four acres, of the profit per head, and see how many birds they will have to keep to make a decent living, and how many more they could keep intensively. You may talk of the semi-intensive poultry-keeping and the running of 400 birds to the acre. In reality that is intensive poultry-keeping, and it is a bad system at that. If we can successfully run our birds intensively, and as far as the layers are concerned I have no doubt on that point, it will enable a large number of small poultry-keepers who average about 50 head of stock to keep four times that number, and that will help to keep out the foreign egg. In hundreds of places in this country, particularly in the manufacturing districts, where too often there is crowding of birds on the very small area of land available, the intensive system, as I have described it, would result in far healthier and better stock. I have seen farms, for example, where chicks have a run out on the bare earth, without a blade of grass on it, and on which two or three broods have run previously. What advantage do you think that is to the chick? In some of the fixed brooder houses, particularly the pipe brooders, the run out for the chicks is a positive absurdity. I will engage that the mortality amongst intensively-reared chicks will be less than it will be on the average farm which is run on what we know as the semi-intensive system. Please note I have said the **average** farm.

Now I have not presented you with a completely made-out case for the intensive system. We have still something to do. At Rudgwick we are mating up the pullets which were hatched in February last year, and we shall see what results we get from the next generation, which will be bred entirely from stock which has been kept intensively, and which will themselves be reared intensively. There is one thing to say before I finish; that is, I most emphatically do not believe in large units for this system, or for that matter, for any system. The most economical unit is 100.

(Continued at Foot of Next Column).

Modern Poultry Feeding.

By **TOM NEWMAN.**

I have received the following letter from Mr. H. R. Brown:—

> "Sir,—'Eggs,' January 27th, in 'Modern Poultry Feeding,' your digression about the neck moult in pullets.
>
> I venture to suggest that you may have drawn the wrong conclusion from the results of feeding to prevent the neck moult.
>
> Your conclusion, as I understand it, is that:—
>
> > 'The additional consumption of food, preferably maize, will prevent the neck moult in early-hatched pullets; the additional food being given to enable the birds to be 'full' when going to roost.'
>
> I conclude from the same results:—
>
> > That additional food will enable certain individuals to give expression to a factor for not moulting which they possess, the lack of such additional food most likely causing the moult by inhibiting this factor. Other individuals not possessing this factor will moult in spite of additional food.
>
> In support of my contention, my experience over four seasons of lighting, giving the birds, roughly, a twelve-hour day and feeding 14lbs. to 16lbs. of kibbled maize while under lights, has yet to prevent the neck moult in the *majority* of January and February hatched Leghorn pullets.
>
> In the case of Mrs. Knight's Wyandottes, it is well-known that this breed possess the autumn-laying factors to a much greater extent than Leghorns (see Hurst's 'Egg Production in White Leghorns and White Wyandottes'), and it has been suggested that this is the factor that controls the neck moult in early-hatched pullets. Mrs. Knight's birds would be well bred and probably possess this factor. The parents' records could help us in this matter. I have read other cases with the same breed, reported in the Poultry Press.
>
> It certainly seems that this point of view should be borne in mind in any experiments that are made, and when drawing conclusions from the results of such experiments."

This is very interesting, but Mr. Brown is a little mistaken when he suggests that my theory is:—

> "The additional food being given to enable the birds to be ' full ' when going to roost."

That is not the case. My theory is:—

> "That the neck moult is caused by the fact that the pullet is unable to consume sufficient food for both devellopment and production. That is to say, that the food which should be devoted to the building up of frame is diverted from this purpose when it is turned into eggs. As a result of this, the bird becomes in under-condition and moults. It is exactly similar to the conditions by which we force a bird into the moult by reducing the quantity of food."

Mr. Brown dilates on the fact of his experience of over four seasons of lighting. Giving the birds roughly a twelve-hour day, and feeding 14lbs. to 16lbs. of kibbled maize while under lights, has yet to prevent the neck moult in the majority of January and February hatched Leghorn pullets.

Might I suggest that Mr. Brown neutralises the effects of the additional grain feeding by prolonging the day to over twelve hours, and that if the pullets had simply been allowed enough time off the perch to pick up as much as they could consume the vast majority would not have gone into a moult. This is confirmed by several letters which I have received on this subject, and notably one from Colonel Swepstone, which was published in a recent issue of "Eggs," of early-hatched pullets which had shown signs of dropping feather, rapidly improving when placed under lights, and coming into full production.

I must confess that I cannot quite see the point of Mr. Brown's letter. We will, for the sake of the argument, accept his conclusions, but what is this factor to which he alludes? One must, I venture to think, associate it with bodily condition, as even he suggests that the factor for not moulting will be inhibited by lack of this additional food. But let us consider those who he suggests will not possess this factor, and who will moult in spite of additional food. Has Mr. Brown ever thought of this in connection with the age at which the birds produce their first egg, and the *rate* at which they produce? As an example, two January hatched pullets, one beginning to lay at 5½ months old, and laying four eggs a week, and one beginning to lay at 6½ months old, and laying three a week. Now, assuming these birds are of the same flock, and have been fed and managed in the same manner, we shall agree that the pullet which started to lay at 5½ months, and whose rate of production was faster than the other, is the more likely to moult because she will have drawn more heavily upon her bodily reserves.

Once more let us refer to the conclusions Mr. Brown has drawn from the fact that his birds moulted in spite of his artificial lighting, and extending the day to twelve hours. It has often been suggested that birds under artificial light are being *forced*. This is partially true, and when the day is extended to twelve hours, I should consider they were being forced. Our object is really achieved when we can assist the pullets to consume sufficient food so that there is a surplus above that necessary for bodily maintenance for egg production. All the data I have been able to collect on the subject of artificial lighting tends to show that any undue extension of the hours of lighting defeats its object. I suggest to Mr. Brown that next year he tries trough feeding the grain to those precocious pullets from the date of the first egg, and instead of four hours' lighting, feeds grain in troughs for half-an-hour between eight and nine o'clock.

(Continued at Foot of Next Column.)

A Year on a Poultry Farm.

BY LIEUT-COLONEL MACRORY.

Chapter VI.

Let us assume that we have now got the great bulk of our young 1925 hatched chicks into the hot water brooder house, and let us endeavour to follow their fortunes therein.

The great curse of "leg weakness" having been practically eliminated during the previous year by the expedient of fitting slatted platforms under the hovers, one made sure that during 1925 all would go as merry as the proverbial Marriage Bells amongst the young stock.

Which just shows how little one knows of chickens! My hatching, as I have intimated before, was nothing to boast about. Still I did manage to extract three thousand live chickens from six thousand eggs in the spring. With my usual optimism, chastened by experience, I reckoned that I should rear two thousand of these three thousand infants. As a matter of fact, things went wrong from the very start. After about ten days of comparative health, the majority of the chickens showed that indefinable look of "thriftlessness" as they approached less tender days. There was nothing absolutely wrong, but there was nothing absolutely right. All big chicken rearers will understand what I mean. It is impossible to explain definitely, but still there is something wrong. The chicks get loose in the feather and listless in the eye, and occasionally an odd one is picked up lifeless in the litter. I am still uncertain of the exact cause or remedy for this state of things, but I do know that it is a very unsatisfactory and unprofitable state. In despair we dumped them out into the Ardmore fireless coops at a bare four weeks of age. The weather being about average for this favoured spot—that is to say, rather excessively vile—those chicks looked the picture of misery for the first few days of their open-air treatment. The weaklings died off promptly and spared all further trouble. The kinder hearted sex implored me to bring back the survivors to their hot-water pipes and soft living. I refused. I had seen enough of them under those hot-water pipes. The chicks remained in the Arctic conditions of the outer world. In a few days, we noticed that those that didn't die were really beginning to live. They became brisk and lively, took a keen interest in their meals, and tightened up in feather in a most marvellous manner. In a week they were highly creditable specimens of—not humanity—I don't know the word—chickenity or whatever you like to call it. This improvement occurred every time a batch left the hot-water pipes for the cold blasts of the outer world—that is, it occurred amongst the survivors. But the number of chickens which went down the local Mississipi was very great. Of three thousand chicks hatched, I may say that a bare fifteen hundred attained to years of discretion. The ravenous gape-worm attacked them in the field, and many perished thereby. Altogether it was not what I call a roseate rearing season. I have since hunted in my mind for the probable cause of such exceptional troubles as occurred in 1925, and my summary would be on these lines:—

(1) Main cause. Lack of sun in the two preceding summers. Breeding stock insensibly weakened thereby, and all harmful and disgusting things—such as gapeworms—correspondingly strengthened and invigorated. All evil things hate the sun and can only flourish in the darkness. This may sound like a sermon, but it is also a well known scientific fact.

(2) The lack of sunlight in past seasons might have been compensated for by its comparative abundance in 1925, only for the fact that my Brooder House is very thoroughly glazed to guard against wind and rains. Hence all sunlight reaching the chicks had to pass through glass. Recent experiments, chiefly at the Zoo, have shown that ordinary glass cuts off the life-giving blue rays of sunlight, and hence practically neutralizes its great value in healthy development.

(3) Another cause, in my opinion, of this "dowsyness"—(this is a word you will not find in the dictionary. It is, however, used with great effect on Ardmore Poultry Farm, to denote ne'er do weels)—amongst the brooder house chicks, was insufficient ventilation under the hover. True, the inmates sat on ventilated platforms, but the air which reached them was, I think, already vitiated being only the lower layer of air from the confined space of the house. What is wanted is the absolutely fresh, clean air from the exterior.

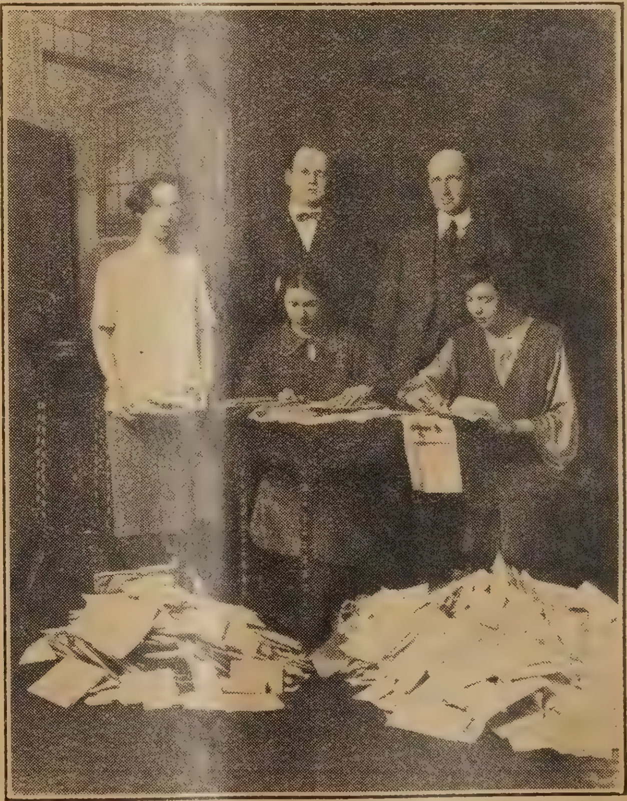
If these are really the correct explanations of the trouble, what do I intend to do for next season? Say, brother, listen!

(1) To guard against the main cause—lack of health-giving sunshine—is, I fear, rather out of my hands. This is more a matter for the clergy to deal with. However, I shall make sure of getting a few more of the **blue rays,** at all events, into my brooder house, by making the glass windows detachable, so that direct sunlight, when and where available, may shine on the 1926 chickens. I wish to add that I am indebted to Mrs. Tom Newman for this suggestion. I am optimistic about it, as what Mrs. Tom Newman does not know about chickens is, I think, hardly worth knowing. (I am quite aware that many of my theories and experiments fill her with an unholy glee).

(2) To remedy the assumed lack of fresh air under the hovers, I have already bored about a dozen one inch holes under each, and covered them with perforated zinc. My intention is to lay a sandwich of straw on the floor over these holes and place the ventilated platform on top. Hence (in theory) a gentle current of diffused fresh air passes upwards through straw, platform and chicks. This is in THEORY only, please remember.

I hope it will prove correct in practice. Mr. Somerville and Mr. Tom Carter might please demolish my theory if so inclined.

(3) To guard against further ravages from the ravenous gape worm, I shall add a drop or two of Izal to the chicks' drinking water, but chiefly I shall rely on my old friend—Semi-solid Buttermilk—to keep the chicks so healthy that they will thrive on the gape worm and its progeny—just as many people eat and apparently enjoy those horrible little bacilli that run about in a really prime Gorgonzola Cheese.



THE MIDLAND FEDERATION PRIZE FUND SCHEME.

The morning post at the Midland Federation Offices.

Right to left: Mr. M. H Brady (Chairman of the Federation), Mr. A. H. Brain (Organising Director).

Centre (sitting): Miss F. Shuker (General Secretary), with two lady clerks, Miss Habberly and Miss Moore.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

SHAPE OF EGGS AND CAPACITY.

A member from Wanstead writes:—

> "At a local Poultry Club meeting a lecturer stated definitely that round eggs should always be chosen for hatching, and those with more or less pointed ends would hatch chicks with small capacity, and many of them would not live";

and he wishes to know whether I would like to raise this point in "Eggs." Personally, he has always chosen the proper "egg-shaped" egg for hatching.

Such a definite statement as this should not be made unless entire proof that it is correct is given. Personally, I would not care to accept such a statement, and would always prefer to hatch from a normally-shaped egg than a round one.

Of course, we are speaking of the "normal," and a round egg is just as abnormal as a very narrow and pointed one. However, I leave this matter here for readers to express their opinion, but one would like the lecturer to explain his reason for such an assertion.

FERTILITY.

An Essex reader writes:—

> "What reason would you give for the following?:—
>
> *January* 11th, eggs in the machine 235, clears 15, dead germs 4, broken yolks 3.
>
> *January* 24th, eggs in the machine 165, clears 79, broken yolks 5.
>
> Can you explain why I got all these clears in the second lot, yet the eggs came from the same pen? The birds are, as far as I know, in good condition."

It is not always easy to explain the causes of infertility, but in a case like this I think our readers will remember that we had a very severe spell of cold weather commencing on the 12th of last month, and severe cold weather will always more or less affect the fertility of eggs. The male birds are not so active, and more particularly is this the case with the lighter breeds. On the date mentioned, too, there was a remarkable decrease in the egg yield almost throughout the country, and I was inundated with letters asking for an explanation. I see the fact was mentioned in the Bentley Laying Test Report.

In reply to my correspondent, he must recognise that climatic conditions would, in so far as they affect the birds, affect fertility. Frequently we find that stock birds exposed to the cold east winds, which prevail in March, lay a far higher percentage of infertile eggs than they have been producing in February.

ULTRA-VIOLET RAYS.

I have received the following letter from Cleveley. My correspondent writes to the effect that an advertisement has been sent to him in respect to Ultra-Violet rays, in which the advertiser claims that their food contains this vital factor because it contains Cod Liver Oil, and my correspondent has also been told by a plumber that these rays can get in through a special patent glass which costs 4s. 6d. per square yard. Having read so much about it, he is keeping his birds on the intensive system, and he is of opinion it would cost a lot to replace the glass in his houses with the special glass.

I think before we plunge more into this matter we must get a little better understanding of what we are talking.

Whether there is "bottled sunshine" in Cod Liver Oil or not, remains to be seen, but we do know that the addition of two per cent. Cod Liver Oil to the mash is of extraordinary value. That I mentioned in a paper read on the subject of "Vitamins," five years ago, at Harper-Adams. Then it was suggested that we might use it in the fish meal, and a good fish meal was placed on the market containing 8 per cent., which gave the most satisfactory results. I was a good deal jumped on at the time for recommending Cod Liver Oil, but its value is pretty universally recognised now. However, there is no reason why we should pay a high price for proprietary mashes simply because they contain Cod Liver Oil—the addition of two per cent. to any mash is quite sufficient. You may be satisfied that an S.P.B.A. mash at 12s. per cwt., with two per cent. Cod Liver Oil added, would be equally as valuable as *any* mash costing double the money, *which would be uneconomical to feed.*

With regard to the question of the patent glass, to which my correspondent refers. This is correct. We know that common glass will not admit the ultra-violet rays, and that special glass can be obtained at the price he mentions which will do so, but there appears to be no reason for fitting the whole front of a house with this special glass. In fact, we may find that we are overdoing it very badly, and defeat our object if we are in too much of a hurry before we understand the subject. It is quite possible that one-eighth of the glass in any house would be quite sufficient for the purpose. Later on we may know more about it.

MEMBERSHIP OF THE S.P.B A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.

FOOD PURCHASE SCHEME.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

Fish Meal (Pure White)	19/6	F.O.R. LONDON.
" " "	19/6	F.O.R. BRISTOL
" " "	19/0	F.O.R. SWANSEA.
" " "	18/3	F.O.R. TYNEMOUTH.
" " "	19/0	F.O.R. GRIMSBY.
" " "	18/3	F.O.R. BRADFORD.

PRICES OF MASHES, PER CWT.

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	11/0	11/0	11/3	11/9
F.O.R. LIVERPOOL	12/0	12/3	13/6	13/6
F.O.R. LONDON	12/0	12/0	13/0	13/3
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN	11/3	11/3	11/9	13/0
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/6	11/6	12/3	13/0
F.O.R. SOUTHAMPTON	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH	12/3	12/6	12/3	14/0
F.O.R. ABERDEEN	12/9	11/9	13/9	13/9
F.O.R. HARROGATE	12/9	12/6	13/6	13/6
F.O.R. GLASGOW	12/3	12/3	12/3	13/3
F.O.R. STAFFS	11/0	11/0	12/6	12/3
FO.R. SUSSEX (East)	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/6	11/0	11/9	12/3
F.O.R. SUSSEX	11/6	11/6	12/6	12/6

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	16/9	14/9
F.O.R. LIVERPOOL	18/3	15/3
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEICESTER	16/9	14/9
F.O.R. KING'S LYNN	17/6	15/6
F.O.R. BELFAST	18/3	16/9
F.O.R. BRISTOL	17/6	15/0
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	15/0	13/9
F.O.R. HARROGATE	17/9	—
F.O.R. GLASGOW	17/3	15/3
F.O.R. STAFFS	17/9	15/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	16/9	14/9
F.O.R. SUSSEX	18/0	14/9

		Per Cwt.
MAIZE GRITS	F.O.R. LONDON	11/0
MAIZE GRITS	F.O.R. IPSWICH	11/0
S. G. OATS	F.O.R. LONDON	13/3
S. G. OATS	F.O.R. SUSSEX	12/6
S. G. OATS	F.O.R. BRISTOL	13/0
MEAT AND BONE MEAL	F.O.R. LONDON	13/9
MEAT MEAL	F.O.R. LONDON	14/3
MAIZE GERM MEAL	F.O.R. LONDON	9/0
MAIZE GERM MEAL	F.O.R. IPSWICH	9/0
MEAT AND BONE MEAL	Carriage Paid	15/3
MEAT MEAL	Carriage Paid	15/9
ALFALFA	F.O.R. LONDON	13/3

We have now been able to procure a consignment of English Alfalfa Meal, and can offer this at 11/6 per cwt., F.O.R., from a town in the Midlands.

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

The following can be supplied in one cwt. lots, Carriage Paid, to all members in :—

Sussex, Surrey, Hampshire and Kent :—

LAYERS' MASH	13/6 per cwt.
BREEDERS' MASH	14/0 " "
GROWERS' MASH	13/3 " "
CHICK MASH	15/6 " "
S. G. OATS	15/0 " "
CHICK FEED No. 1	19/6 " "
CHICK FEED No. 2	17/6 " "

Herts, Essex, Suffolk, Norfolk, Bucks, Middlesex, Cambs.:—

LAYERS' MASH	14/3 per cwt.
BREEDERS' MASH	14/9 " "
GROWERS' MASH	14/0 " "
CHICK MASH	17/0 " "
CHICK FEED No. 1	20/3 " "
CHICK FEED No. 2	18/3 " "

These cannot at present be supplied to counties other than those mentioned above.

WESTERN COUNTIES BRANCH.

This is what was known formerly as the Gloucestershire Branch A short time ago the Council granted permission for the change of name to enable the Branch to extend its operations to the counties of Somerset, Wilts., Worcester, Hereford, and Monmouth, in addition to Gloucester. Members of the Association desirous of joining the branch or a sub-branch should communicate with the secretary as below.

A very keen sub-branch has been formed in Gloucester City, where monthly meetings are held. Mr. H. W. Fowles is chairman, and Mr. May Bellows, Wheatridge, Upton St. Leonards, Gloucester, is the energetic local hon. secretary.

Two special meetings were held at the Y.M.C.A., Gloucester, on February 4th, when we were favoured with a visit from Mr. Tom Newman. The first meeting was held at 3 p.m., and was addressed by Mr. Newman, who gave a most interesting paper on "The Intensive System." Mr. E. F. Thornton gave a "Short Talk to the Small Poultry-Keeper."

This was followed by tea, when a very pleasant social hour was spent.

At the evening meeting Mr. Newman spoke on "Little Things That Matter," and Mr. R. A. Johnson on "Factors Necessary to Ensure Success" in Poultry-keeping.

Needless to say both addresses were full of valuable matter to all poultry-keepers.

Mr. E. J. Bacon, the President of the Branch, presided with his usual ability at both meetings.

The meetings were quite well attended, and the questions which followed the addresses showed great interest and keenness on the part of the audience.

Another sub-branch has been formed at Tewkesbury, where Miss J. C. Steward is chairman, and the hon. secretaryship is ably held by Mrs. Phillips Morgan, Hill House, Bushley.

A special meeting was held there at the Town Hall on Friday, February 5th, the Mayor presiding. Mr. Newman also addressed this meeting, and spoke on "Some Problems in Poultry Keeping." He was listened to very attentively by a very good muster of enthusiastic poultry-keepers, who bombarded him with questions afterwards.

We are always pleased to see and hear Mr. Newman in this part of the country, but doubly delighted with his visit this time, as we had the pleasure of meeting Mrs. Newman, who accompanied him.

It is intended to start other sub-branches in the county of Gloucester, and we hope in the other counties included in the operations of the Western Counties Branch.

ERNEST A. CRAFT, Hon. Secretary.

Wishmoor, Cheltenham.

The Goat-Keeper's Diary.

1st February.

Adult Stock. All adult goats in milk should still be giving a fair supply of milk. I consider that if a goat has milked from early March or April, two pints a day is a good average yield now. If, however, she is due to kid soon, she will probably not be giving so much, and when she falls to a daily yield of a pint it is advisable to dry her off. This presents no difficulties if the milking is not stopped too suddenly. Milk her only once a day for three or four days, then on alternate days for a day or so, and by that time no discomfort to her will arise if milking ceases.

Feeding of adult and young stock should be liberal during the month. Hay should be the staple food, and it should be the best procurable. Good clover or seed hay should not cost more than 2s. 9d. to 3s. a truss of 56lbs., and this is the kind that is so valuable for goats. Meadow hay is by no means so valuable, though an occasional change to this variety is often welcomed by goats. In all cases goats waste a fair amount of their hay as they have a habit, by no means a reprehensible one, of refusing to touch any food that falls to the ground. In my own establishment I make a point of collecting the fallen hay before it becomes soiled and using it either in the rabbitry or as an addition to the fowl's scratching litter. If left to become incorporated with the manure it makes a rather too fibrous fertiliser for many soils, though on a soil of a light nature, extra fibre might be of some advantage. In my own case I find the above methods of utilising discarded hay a source of considerable economy.

The early kids will be arriving now. Have a loose box ready in which a goat expecting kids can be put, as a kidding goat should never be tied up. Plenty of litter should be on the floor, an attention which most goats prefer to be without at normal times. Always leave a pail of water within reach of the goat, as should she kid during the night she will need a good drink. Goats are better left to themselves during kidding, and very seldom come to any harm provided they are not tied up. When the kids are born the mother will lick them over, and make them comfortable, but if for any reason a kid seems weak and unable to stand up, it should be moved to some quiet corner, where the mother is not likely to tread upon it. If, on the other hand, it is not desired to keep any of the kids, it is a wise plan to remove them from the mother immediately, and dispose of them forthwith. There are all sorts of ways of doing this—chloroform, a hammer, a boot-lace, or a tub of water—but in any case do it quickly.

Young Stock. Any goat born in the early part of the year that is well grown should now be mated. The old plan of waiting until an animal is two years old before mating her has been proved to be wasteful and unnecessary. Early mating will not check growth, but it is not advisable to keep a kid produced from such mating, for the obvious reason that the mother has not yet proved herself a good milker, or otherwise. Therefore, there is no need to seek the services of an expensive billy if a cheaper one is available.

(Continued at Foot of Next Column).

Correspondence.

HEAVY VERSUS LIGHT BREEDS.

To the Editor of "Eggs."

Dear Mr. Newman,—I note Mr. Youens' reply to my criticism of his figures.

Surely Mr. Youens does not ask us to accept 2s. 3d. per head for R.I. Red hens as a recognised figure, because he ONCE obtained that price TWO YEARS AGO! If he will come here on market day he will see Rhode hens sold alive for 10s. and 12s. per couple *frequently.* I get my price by private sales for live hens.

Would any practical man who really KNOWS the game accept 4s. 6d. per couple for his hens? A neighbour of mine assures me that he gets 8s. per couple for LEGHORN hens, and his words can be trusted. How farcical 2s. 3d. per bird for heavies seems compared with this.

Of course it must be understood that my figures refer to MEATY birds, not "bundles of skin and grief." It is an accepted fact that if we want best prices our standard of quality must be very high.

Mr. Youens disposes of the cockerel question by a bald statement of "The 2s. profit would not be obtained." WHY? It *can* be done, and *is* being done. If we are going to hatch *all* our heavies in March we shall not get top prices for table birds—it is the January and February cockerel which raises the average.

A heavy cockerel well reared and fed is ready at about 14 weeks, and for such early cockerels NOT CRAMMED but sold alive as much as 18s. per couple was realised last spring. A normal price was 14s. to 16s. per couple. Does Mr. Youens doubt that—all sold—we can raise these birds to killing age for 10s. per couple?

Again, what does Mr. Youens mean by "Almost double the number of heavy hens are required to Leghorns, and about 33 per cent. more cockerels?" Does he ask us to accept this as meaning that to produce the eggs for hatching 1,000 chicks DOUBLE the quantity of heavies are needed to lights? Surely that is mistaken reasoning! Actually heavies are laying more prolifically in the cold months than are the lights, and pen for pen the former are giving us more eggs when we require them for hatching.

Can Mr. Youens tell us the cost of "cockerel for fertilising"—per egg?

Last year I hatched some 2,000 chickens, and certainly did not begrudge the extra labour needed for raising the heavy breed cockerels.

This year I am putting down approximately 6,000 eggs—chiefly heavies—because I believe that everything that shows a nett profit—however small—is worth while in poultry farming.

I cannot agree that I have "plonked" 1s. from the pullet on to the cockerel. I have hardly reached the stage where I transfer a coin from one pocket to another, and consider myself that much richer.

Finally, I think this H. *v.* L. question is closed by the Harper-Adams' figures on page 72 of "Eggs" of February 3rd. Here it gives: Heavies, money value £1 8s. 6d. per bird; Lights, £1 7s. 5d.; R.I. Reds, £1 6s. 1d., against Leghorns, £1 4s. 4d. This WITHOUT the extra cockerel profits.

It is definitely in favour of the heavy. "Every mickle makes a muckle."

Yours very truly,

A. C. BYGRAVE.

THE MARKETING CONFERENCE.

Dear Sir,—After reading the report in "Eggs" of the Marketing Conference, and being, as you know, an advocate of "'EGGS BY WEIGHT,'' and, seeing very little prospect of this being adopted, I am going to give you "'EGGS' BY WEIGHT" (new style), as I cannot understand why we, as producers, should not get full value for our eggs. I will give you my suggestions, and trust you will root them out, and see that they are brought to the notice of the persons who are now considering these marketing proposals. Firstly, I will suggest three grades:—Specials, to be all eggs from 2⅛ozs. to 2⅜ozs., average. 2¼oz. Standard, all eggs 1⅞ozs. to 2⅛ozs., average 2ozs. Smalls, all eggs 1⅝ozs. to 1⅞ozs, average 1¾ozs. This will cover practically all eggs. Only standard eggs prices to be quoted in Press or contracts; other grades, if in same consignment, to be paid for as per list of prices given. This is as near 'Eggs by Weight' as possible, and should be made compulsory on all buyers. All eggs sold wholesale to be compulsory put up in sealed cartons, with grade and age of oldest egg in carton, producer's name and address, all plainly stamped on. Twelve—1 doz.—cartons to be put in non-returnable box, equalling one gross. This is to be the standard packing for all English eggs, except preserved, *which will not be cartoned* (this perhaps overcoming the objection to eggs being washed, which at present many buyers dislike, owing to their similarity to preserved eggs). For all wholesale purposes eggs to be sold by the gross (12 dozen), and for all retail purposes by the dozen or part. To meet the objection of any general farmers or others, who do not care to grade, arrangements could probably be made to have their eggs graded and cartoned by members of our society or others, for a small sum to cover cost. You will see from enclosed list of prices how we stand to gain on our large eggs, which to-day we are sometimes lucky to get 1d. or 2d. per score more for, when eggs are at top prices. I might mention, respecting boxes, that in Canada we used boxes holding one gross eggs, which were very cheap, and were also capable of being folded up flat when empty, so could be returned cheaply. Finally, I may say that if we are to have compulsory grading, which seems the only way to lift our eggs to their proper place, surely we must be paid for the extra work entailed.

SPECIAL.		STANDARD.		SMALL.	
Gross.	Dozen.	Gross.	Dozen.	Gross.	Dozen.
15/9	1/3¾	14/0	1/2	12/3	1/0¼
18/0	1/6	16/0	1/4	14/0	1/2
20/3	1/8¼	18/0	1/6	15/9	1/3¾
22/6	1/10½	20/0	1/8	17/6	1/5½
24/9	2/0¾	22/0	1/10	19/3	1/7¼
27/0	2/3	24/0	2/0	21/0	1/9
29/3	2/5¼	26/0	2/2	22/9	1/10¾
31/6	2/7½	28/0	2/4	24/6	2/0½
33/9	2/9¾	30/0	2/6	26/3	2/2¼
36/0	3/0	32/0	2/8	28/0	2/4
38/3	3/2¼	34/0	2/10	29/9	2/5¾
40/6	3/4½	36/0	3/0	31/6	2/7½
42/9	3/6¾	38/0	3/2	33/3	2/9¼
45/0	3/9	40/0	3/4	35/0	2/11
47/3	3/11¼	42/0	3/6	36/9	3/0¾
49/6	4/1½	44/0	3/8	38/6	3/2½
51/9	4/3¾	46/0	3/10	40/3	3/4¼

I have put in dozen prices, although they would not affect us much as producers, and list covers practically all prices from 12s. per 120 to 36s. per 120, the present highest and lowest prices.

Yours truly,

F. T. MILLBANK.

THE GREAT EGG ILLUSION.

Sir,—The following is a copy of a letter I have addressed to the "Westminster Gazette" in reply to an article printed therein this day:—

> "Sir,—As you have the reputation of publishing both sides of a question may I make a few remarks as a producer of English Eggs?
>
> The article is most misleading, and the few statements of fact make it more so. I have not seen the Report of the Minister of Agriculture, but merely take the statements in your article.
>
> The standard British egg is 2ozs., and so also is it elsewhere. Holland and Denmark certainly pack 16, 17, and 18lb. eggs (per 120), so also can the English producer, but because our London dealers refuse to pay more for 18lbs. than 15lbs. they naturally do not get 18lbs.
>
> Many of them (Dutch and Danish) are certainly of good quality, but not one bit better than those obtained *direct* from a British producer.
>
> Your statement that it is possible to buy Dutch eggs within three days of being laid, I would say *possible*—yes, but very improbable.
>
> Now, Sir, you seem to be very much afraid the English producer is going to be knocked on the head when foreign eggs are marked, but I assure you the poor producer fears not, but rejoices to think the English housewife will be able to get what she asks for.
>
> You do not seem to be aware that the opposition—practically the whole opposition to marking

foreign eggs—has come from importers and grocers. Curious, is it not?

I have had dozens of circular letters from London importers offering me imported eggs, and offering a price for my own eggs. Can you guess what this means? I have seen a grocer unpacking imported eggs, and putting them in a show-case marked "English New Laid," and I have caused three shops to have the label, "Imported Eggs," put in their show-case.

I admit there are black sheep in our fold, too, and in two cases producers within 20 miles of me have fallen victims to the temptation of the imported, and suffered as they deserve. Now, sir, if Imported Eggs are marked, this sort of thing cannot occur. The producer cannot mix the eggs, neither can the Grocer or the Importer, and they will be sold for what they are worth—both English and Imported.

You will then find the English Egg as fresh or fresher than the Dutch or Danish, and when the merchants are prepared to pay for 18lbs. English eggs they will get them. In my fourteen years' experience of Egg Production I have only known of one case where a producer was able to obtain a higher price for eggs over 2ozs. (15lbs.), and that was from a hotel.

Now, sir, about this horde of officials necessary to inspect imported eggs—do you really think it will be a greater task than the inspection of—shall we say, matches, for instance?

Yours faithfully,

"PRODUCER."

LIGHT *v.* HEAVY BREEDS.

Dear Sir,—Mr. Hemelryk's attack on the W. Leghorn is funny.

I might remind him that one breed he is interested in know how to put out small eggs—the Light Sussex—if he looks up that breed from last year's National Test results.

He says: "The White Leghorn has got to go." Well, if it does it will only be to return, and with a big welcome.

If a dual purpose breed were taken up to-day by egg farmers—in ten years' time or less we should hear the same cry about them, as is the case with the Light Breed of to-day.

Meat and eggs, yes, but one has to be sacrificed to get the other to a certain extent. To keep a dual purpose breed up to Standard weight, the egg farmer would have to do his own pedigree breeding.

No, sir, I do not see anything uneconomic from the egg farmer's side about the White Leghorn.

Massed production and massed methods, I should say, are to blame where 3s. profit is only made.

Give the White Leghorn the same advantages as its heavy sister in housing and numbers. Mr. Hemelryk asks: "Why should I not keep fowls until their fourth year?" A short life and a merry one is my way with fowls. I do not like too many doing "nowt" when eggs are 3s. 6d. per dozen, as he states "that is the time we want eggs." I should have thought that question was quite unnecessary.

I certainly do not agree with him that the birds at Laying Tests are the best in the country.

Does he admit, then, that his pen of birds were the pick of his birds? If so, I should advise him to try some other breed—the White Leghorn, for instance. I should be very sorry to have to work on a less average per bird than the return of the average laying test bird. How many pens of birds laid under 700 eggs in last year's National Test? A good many he'll find.

Again, I might say if his birds at this test are typical of his at home, how does he get the proof that heavies lay best when eggs are highest?

He advises Mr. Day to wade through advertisements to get "sort of," conversant with the numberless breeds of fowls. Well if the result of the laying test is anything to go by, I should advise Mr. Day to leave severely alone that breed of birds which are reputed to lay when only their heads are above water.

Does Mr. Hemelryk not know that the worst enemy of laying test birds is an unnatural moult?—the result of being moved? As to his remarks about Divine Providence booking biddy to give us a certain number of eggs this is all rot, and not worthy of a practical poultry farmer. No, sir, God help those that help themselves. How can broodiness be a blessing? Let him look up the R.I. Reds of last year's test. He will see I had a pen of Rhodes therein, and the bird that was least broody laid a total of 243 eggs in 44 weeks' extra lay. Had she been broody, as her remaining sisters, she could not possibly have done it. Does he not know that the bird that takes longest to mature is generally excessively broody?

Eggs pay me all right when at their lowest, from Light Breeds, as they generally put out five to six eggs per week. Also my pullets returns are much above those from laying tests, and I have no axe to grind and nothing to sell, nor am I anticipating advertising.

For the Cheshire correspondent's benefit I might say that I do not keep heavy breeds after their first year, but White Leghorns I find profitable over two years.

I am a One-Man Poultry Farmer, keep books, and so have my business at my finger ends—hence I can pick out the good from the bad more easily.

As to Mr. Hall's remark that 6d. would cover the extra cost of rearing the heavy breeds, that sum would only cover the extra cost of the chick when hatched and reared to the growing stage.

Yours truly,

V. J. YOUENS.

P.S.—Your Cheshire correspondent might find less difficulty with Light Breeds—no leg weakness there. If he does not like to do that I advise him to put his light breed cockerels with his heavies. If he follows this advice I can see him writing to me next year about this time as to what size in gold watches I take.

Answers to Queries.

By the **EDITOR.**

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to **Major C G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.**

Bodies should be packed and sent by post immediately after death. marked for immediate delivery. The fee is 5s. for a reply by post The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

C. C. (Hunts) has a flock of R.I. Red pullets hatched in March and April which have only just started to lay. Up to a fortnight ago he was only getting about five eggs a day from the 80 birds, and now they are laying from ten to fifteen a day. They are in perfect health, and are fed in exactly the same way as the Light Sussex birds, which were hatched at the same time, and have been laying well since October, and have laid a flock average of 37 eggs per bird during December and January. The R.I. Reds were from hens which laid well, mated to a cockerel selected from a number of day-olds, which were guaranteed to be from a 200-egg "strain."—I think this is where we find the secret of "C. C.'s" failure. 200-egg strain means nothing. As it has been so many times pointed out in these columns, a bird may be of 200-egg strain, and yet be the son of a dam which did not lay 50 eggs. When "C. C." buys a cockerel again, he should be particular to get the individual record of the dam and her winter record. With regard to his question as to whether he should sell these birds now or keep them to see if they will lay well in Spring and Summer—No, I would not advise him to sell them now. Assuming they lay well in Spring and Summer, they will be doing so when egg prices are low, and such late maturing birds as this usually moult early. Prices now are good, and I would advise him to sell at once.

N. J. (Whitwood) wishes to know the best dry mash on which to rear chickens which are intended for table purposes. I can only refer him to the dry mash used in the Wellingham experiments last year, which gave such extraordinarily good results. This was fed from the time the chicks were 48 hours old until they were eleven weeks, when they were trough fed for a fortnight, and crammed for a week. The mash is as follows:—20lbs. bran, 45lbs. middlings, 10lbs. Sussex ground oats, 10lbs. maize meal, 5lbs. dried skim milk, and 5lbs. soya bean meal.

F. W. (Longfield) has a pen of 44 R.I. Reds which were doing well with eggs until he put in four cockerels, when the eggs have fallen off of late. This is serious, as he is depending on them for his incubators. His feeding consists of two parts wheat, one maize and one oats, and he asks if he should increase the maize. I cannot say, as he does not give me any particulars. The drop in the egg yield when the cockerels were put in is probably only a coincidence. There may have been other factors which influenced this. With regard to his other question as to feeding wet mash for chicks, including skimmed milk or dried, I do not think dried milk can be made of much use in a wet mash; I would much prefer it dry. He could use the following formula for dry mash for chicks:—21lbs. bran 10lbs. alfalfa meal, 35lbs. middlings, 24lbs. Sussex ground oats, 14lbs. maize meal, 10lbs. dried milk. As a wet mash: This could be made of biscuit meal, mixed with skimmed milk, and dried off with coarse middlings, or ground oats, biscuit meal and middlings.

H. B. L. (Wadhurst) asks if we can give a suggestion as to the cause of eggs from a young White Leghorn hen being, to all appearances, bad, although newly laid. They have found, after boiling, the white of the egg to be of a brownish shade and the yolk of strange appearance; when the egg was broken the white and the yolk were mingled. The probability is that the egg had been retained too long in the oviduct. This may arise from two causes: Either from the bird being in a slightly overfat condition, or, as is sometimes the case with a very prolific layer, the muscles of the oviduct being weakened. Very frequently we get eggs such as my correspondent describes sent us.

E. B. (Plymouth) sends a sample of Chick Feed at £1 per cwt. This is one of the worst samples I have ever seen. It has a very high percentage of millet and lentil, a small quantity of wheat and a little maize. All the cheapest possible ingredients have been used, and it would appear most indigestible. The percentage of millet is out of all proportion, and possibly this is used because it is one of the cheapest seeds procurable. If my correspondent realises that millet seed can be bought at £11 per ton, he will understand why it forms such a large proportion of this Chick Mixture, but I certainly think that such a mixture as this would to some extent account for the heavy losses from which he is suffering; but I would also advise him to send some of the chicks for post-mortem examination.

E. V. W. (Delmar) has mated a pen of Rhode Island Red pullets to an Australorp cockerel. She has been told this is a sex-linked cross, and wishes to know how to distinguish the sex of the chicks at hatching. My correspondent has been incorrectly informed; there is no sex-linkage in this case. Most of the chicks will be black, and later will develop bronze feathers in the hackle and flights.

Worried (Lincs) is losing a number of chicks from what, he says, is leg-weakness, and he wants to know what is the cause of the trouble; they are moping and their wings droop. I must impress upon my readers that, because a chick staggers about, it is not necessarily "leg-weakness," as we understand the term. By it we mean a ricketty condition, totally distinct to the weakness which is caused by disease or debility. Chicks in a ricketty condition which is known as leg-weakness do not as a rule mope, nor are their wings drooping, as is the case with those which are weakened by disease. There are several possible causes which might explain why my correspondent is losing his chicks, and he would be much wiser to send some to Major Saunders for postmortem examination. I have no particulars other than that the losses are heavy, the chicks mope, droop their wings and stagger about.

W. A. B. (Lynham) sends a very nice sample of meat and bone meal offered at 16s. 6d. per cwt. It is good value for the money.

G. A. F. (Heaton Moor) wishes to rear some chicks on wet mash. For this purpose he could use biscuit meal scalded, or preferably soaked in skimmed milk, and dried off with coarse middlings, and he should endeavour, in any case, to give his chicks milk in some form, for the first six weeks. Another good formula would be:— One part biscuit meal, one Sussex ground oats, scalded and dried off with three parts middlings, one bran and five per cent. fish meal added. If he is using separated milk, he should not use the fish meal. Of course, milk would benefit the chicks. He should give it at least for the first six weeks. In reply to his second question as to what I consider the best time for hatching Black Leghorns for winter laying—about the 15th April. I would not care to give green cut bone to the chicks until they are two months old. It is excellent for egg production, and might be used in place of meat and bone meal in the mash.

H. E. N. (Nottingham). This will answer my two other correspondents from Rotherham and Newport, Mon. Scaly leg is not inherited. Sifted ashes or dusty soil are not the cause of this trouble. It is due to a parasite, and this parasite appears to be more prevalent on light and dusty soils than on wet and heavy ones. In answer to my correspondent's second question, as to chicks dying about ten or fourteen days old. I really am not able to assist him. There may be a hundred causes from which they might die at this age. It would be much wiser if he sent a chick for post-mortem examination, and as he is losing them in such large numbers he should not delay.

T. I. (Ventnor). I do not agree that a good ration for winter layers would be 2½ ozs. mixed wheat and cracked maize and two ozs. of fine middlings, and half an oz. meat meal per bird per day. I think it would be a mistake to give one oz. of grain in the morning, and the mash at mid-day, and then one oz. of grain at night. The birds should have a full feed at night, and it should be a clear 2½ ozs. of grain. Further, the middlings would have to be of the very finest quality. Such a mash, too, would be terribly deficient in ash content, and is not likely to be conducive to heavy egg production. There is no difference between "blues" and middlings. Middlings and meat meal are not sufficient for a mash, and it is not waste of time to mix a number of ingredients. A mash containing five ingredients would be more easily digested than one containing only two.

POST-MORTEMS.

W. I. C. The post-mortem examination of the three month old chicks revealed no evidences of contagious disease or parasitic infestation, but showed that they were the subjects of rickets. The calcification of the bones was quite incomplete, any of the long bones bending in any direction, or angle without fracture. There were evidences also of the digestive derangements which almost invariably accompany this deficiency disease. Vitamines, available lime salts and minerals, and sun-light, or, at least, unfiltered daylight, are the essentials in the treatment of this trouble, and can be supplied by the addition of 2 per cent. of cod liver oil to the mash, plenty of green food (cabbage for preference), and the addition of fish meal to the ration, and as much exercise in the open air as the weather will permit of. They would also benefit by a mineral tonic, such as 40 grains of the citrate of iron and quinine added to each gallon of the drinking water for a fortnight or three weeks.

R. A. B. The most careful microscopical examination of the bowel contents failed to reveal the presence of Coccidia, and neither were there any lesions suggestive of this disease, but the Aspergillus fungus and its spores were found to be present in the lungs in every case, and this would seem to be the cause of the mortality. As you know this is a fungus that attacks damp materials of all descriptions, food and litter included, producing mustiness and producing spores in great numbers. Avoidance of the cause is the most effectual method of curtailing the mortality, as treatment is not very satisfactory, although a tonic, such as 40 grains of citrate of iron and quinine added to each gallon of drinking water, does seem to have a good effect, probably by raising the general tone of the system and helping them resist the effects of the invasion.

B. R. The duck arrived safely, and upon examination was found to be suffering from slight prolapse of the cloaca, due, I think, to constipation. The prolapse was replaced without difficulty, and has remained in situ, although she has since laid an egg. She was given a very full dose of medicinal paraffin through a rubber tube and small syringe, the tube being pushed gently down the throat, as far as the oesophageal dilatation, and this was followed by a dose of Glauber salts. I did not think it necessary to kill her, and unless I hear from you will return her in a day or so, if she appears to be normal in every way

C. B.—The post-mortem examination of the chicks showed lesions very suspiciously like those of B.W.D., but to make quite sure I will make a bacteriological examination and wire you the result as soon as concluded (it takes about three days). The only lesions in the other chick were those of pneumonia, and no signs of like trouble. The disinfectant you are using should be effectual as far as floors and equipment are concerned, but the trouble evidently comes from the breeding stock, and the unfortunate chicks infected before they are even hatched. I will send you a tube to collect some blood from the cockerel and return to me, as it is not necessary to send him. You secure the bird and have him held by a person seated, and then turn up the wing and look for a large vein close to the body, compress this with the fingers, and when full nick with the point of a sharp knife and let the blood flow into the tube up to the yellow mark; cork the tube and stand upright, and leave undisturbed for several hours in a cool place, then return to me. The cost for a single bird is 2/6. The extra fee for bacteriological examination will be 5/6 at your convenience.

W. I. C.—The post-mortem and microscopical examination of the chicks showed that both the week-old and the two-week-old were affected with Coccidiosis, which of course is a contagious disease. As regards the others recently examined and referred to in your letter, the increased consumption of mash might very possibly cause the digestive upset and so cause reflex irritation and congestion of the brain, resulting in convulsions, etc., but it would not cause the rickety condition found, the causes of which were mentioned in my last report. The enclosure gives details as regards Coccidiosis, and will I hope be of some service to you in getting control of the disease.

V. G.—The only lesions discoverable in these chicks were those of pneumonia, but there was nothing characteristic by which the cause could be determined. Otherwise they appeared to be healthy and well nourished and with good digestions, and were free from parasites. It might be well to look to the ventilation of the brooder, as vitiated air and too high a temperature is as productive of pneumonia as chill, and in my opinion more so. Add 2 per cent. of cod liver oil to the mash, and 40 grains of citrate of iron and quinine to every gallon of their drinking water.

KEIGHLEY AND DISTRICT BRANCH OF S.P.B.A.

The third of a series of Open Egg Shows will be held in the Temperance Hall, Keighley, on Wednesday, March 3rd, 1926. Judge: Mr. Ed. Hodgson, Oakworth. Entries are invited for Seven Classes.

Hatching Eggs.—Class 1: Six white hen eggs; Class 2: Six tinted hen eggs; Class 3: Six brown hen eggs.

Commercial Eggs.—Class 4: Six white hen eggs; Class 5: Six tinted hen eggs; Class 6: Six brown hen eggs.

Class 7: Six duck eggs (hatching).

A Silver Challenge Trophy is offered by the Society for most points gained in the whole series. Mrs. A. Wilson will give a silver spoon for most points gained in the duck egg classes.

No entry fee. A prize of 2/6 will be given in each class where there are six or more entries.

After awards have been made, eggs to be sold and proceeds to go to the funds of the Society.

Your hearty co-operation is invited. Packages of eggs should be addressed to the Hon. Secretary, Keighley and District Branch of S.P.B.A., Temperance Hall, Keighley, and should arrive not later than 6.30 p.m.

Judging will commence at 6.45 p.m.

After the sale of eggs Mr. Frank Snowden, Cowling, will give an address, entitled "The Building Up of a Pedigree Laying Strain." Everyone interested is invited.

The President of the Society, Mr. Frank Snowden, cordially invites the members to a social, to be held in the Crotona Hall, Keighley, on Saturday, March 13th, 1926, to commence at 7 p.m. Each member may bring a friend.

A. WILSON (Mrs.), Hon. Secretary.

Commercial Poultry Farming.

By T. W. TOOVEY.

Continued from page 108.

Leaving out of the question the pedigree breeder and his methods with which I am not immediately concerned, and know little about, the industry as a whole is still in a state of chaos. It reminds me of the Flour Milling Industry of the nineties in the last century, when roller milling superseded the old stone mills. There were several firms of Milling Engineers, each with their own system, each of which was the best according to their advertisements, and special pleading, and individual millers found it difficult to select the system best suited to their requirements. By degrees, after several years' experimental work, and much controversy, we have all come to what is practically one system, with a slight variation in details; the main principles are the same in all. Hundreds of the smaller millers went under—I think I may truthfully say, thousands. Order came out of chaos. So will it have to be, if table eggs and table poultry are to be produced on economic lines, with the commercial poultry industry.

As the pressure of foreign competition forced the English flour millers to adopt modern methods, so will foreign competition compel us in this much newer industry to adopt the most economical methods of production, and to market our produce in the best way, if we are to survive. The flour millers have nearly driven their foreign competitors off the home market, although at one time they held quite 25 per cent. of the trade. May it be so with us. Let me say, frankly, we and the appliance makers have to work out our own salvation; Government institutions will not help us except in the matter possibly of disease. The Trading Accounts and Balance Sheets resulting from our efforts will be the crucial test.

The system introduced by Mr. Hanson in or about 1911, and described in his book, is the nearest approach to a standardised system existing at present, to any extent. Unfortunately, this system, while admirable for the White Leghorn, is not so suitable to heavier types of poultry having table qualities. The continual spread of Bacillary White Diarrhoea has made the mass-production of chickens too full of risk and danger to the undertaking. The increased risk of disease and the difficulty of controlling the same in very large flocks of hens is, in my judgment, another point against the Hanson system.

The system I am about to describe is the one that the circumstances of last year led me to evolve out of the system that had been successful for several years, and was found wanting when disease came. I was working on a widely-extended colony system for the laying stock, dispensing with fencing, except for the breeders. The great faults were that one huge flock was too much to either supervise or control, either by my employees or myself, and the land was permanently occupied. There has been a tendency during the last few years for all of us to over-concentrate and intensify our systems—excusable, but dangerous. I regret to see that it is proposed to still experiment on these lines. I believe they must result in failure either sooner or later.

Before proceeding to deal with details I propose to lay down the principles upon which this farm is now run. Two other farms belonging to young friends of mine are also being adapted to, or laid down in this way:—

(1) The system is a modified colony system in moderate flocks, preferably not exceeding 100 each.

(2) It is worked in watertight sections of 200 birds each, under the control and management of its own staff of two men, one of whom takes the lead.

(3) All hatching and rearing is done by hens; the hatching season is spread over a long period, extending from very nearly in December till the middle of May, if necessary.

(4) All land and plant has prolonged periods of rest from occupation by any poultry.

(5) Breeding stock are kept at not more than 200 to the acre; selected cross-bred hens are mated to pure-bred pedigree males; no pure-breds are kept; none are bred, as the male birds are purchased.

(6) Litter feeding has been abolished, as being both uneconomical and dangerous.

(7) Table eggs and table poultry are the only products depended upon for returns.

The farm is a trinity of farms—three in one—for general management; one in three as far as repairs and renewals and commercial management are concerned. The total head of laying stock aimed at is 6,000. The area of land employed is 34 acres. For the size of the farm it would be a better arrangement if this amount could be increased to 42 acres. I may be taking risks in maintaining 6,000 layers, but this size is more economical than less as the farm becomes self-contained for all labour, including the clerical side.

The system is suitable for 1,000 birds and upwards, but it is based on the 1,000 birds per man, as far as attendance is concerned. Two men will, however, manage 2,000 better and far more comfortably than one man can care for 1,000. For 6,000 birds there are 6 poultrymen, working in pairs; one poultryman carpenter, who keeps the plant in repair, and who can take the place of a poultryman if one is absent, and a capable clerk, who is responsible for the accounts; the distribution of the produce and the proper keeping of the records—eight men in all.

The ideal amount of land for each section would be 14 acres. This would be apportioned as follows:—Twelve acres for laying stock, and two acres for rearing young stock up to 13 or 14 weeks old, the twelve acres to be divided up into three paddocks of four acres each. Two enclosures occupied, one resting.

The 6,000 birds here are divided into three equal lots, two thousand being placed under the charge of two men. As each section of 2,000 is on exactly the

(Continued at Foot of Column on Next Page):

Correspondence—Continued

HATCHING AND REARING.

Sir,—Seeing the numerous letters from members who have trouble over hatching and rearing I wondered if the system used here might help any of them. It gives me a 99 per cent. fertility—followed by a 92 per cent. incubator hatch in February.

I have several semi-intensive houses 8ft. x 6ft., with pull-up glass windows. These are put on wheels; the only inside fitting is a removable range of trap-nests with a dropping board and perch on top, and a dry mash hopper. In the autumn 12 selected hens are put in each house, the cocks are added in December. The houses are lined up at intervals on a path near to the main buildings. As soon as individual eggs are wanted, the houses are drawn to outlying points at a considerable distance from the main flock. Here the birds find themselves on fresh free range, and go ahead splendidly, and since neither houses nor mash have changed, the move does not check them. The birds remain in the houses till the end of the breeding season; then they return to the main flock. The wheeled houses have the nests removed, are cleaned, and a number of low perches put in. They are then taken to the rearing grounds; the chickens from the brooders are put in. About June all the young pullets are wheeled to a clean hay field, and remain on range till September, when they go to the laying houses. Such old birds as are kept a second season then have their country holiday, while they moult out. Finally, the wheeled-housed are cleansed and revert to breeding pens.

Does it pay? I believe it does. The chief criticism is the distance that has to be covered feeding and untrapping the birds. If they are arranged in sequence off paths it can be done on a bicycle. I do not find, where the cocks know each other, and do not want to fight, and where the pens have been mated sometimes, that the distances between pens need be great; they do not trespass. I have no cost of putting up, maintaining, or cleaning wired pens. I know that the eggs will be plentiful, fertile and hatch easily, and that the chicks will be no trouble to rear. I am building up a new flock here. The foundation stock which came from famous breeders was often small, had crooked breasts, and laid numerous but small eggs. These three faults were cured in one generation, and the chickens hatched from very heavy laying pullets show the same vigour. So valuable have I found this method that had I not the land I should hire the right to run breeding pens on my neighbour's pasture.

Yours faithfully,

(Miss) M. WHITE.

B.W.D.

Dear Sir,—In reply to Mr. H. R. Brown's letter in "Eggs," I should be inclined to argue as follows:—

We know the B. Pullorum does exist, and no doubt the presence of the other factor aids it in its fight for supremacy and in rendering a chick a victim of B.W.D.

If B.W.D. is hereditary, the chick starts life infected with the B. Pullorum, and the fight for supremacy goes on until the toxin or the anti-toxin wins. Should the environment be such as reduces the chick's vitality and general resistance to disease, the chances of the poison emitted by the bacillus gaining the ascendancy is increased until eventually it gains the upper hand, and the chick is a victim of the toxin, or, in other words, B.W.D.

Inoculation may or may not cure the disease—it is not administered for that purpose—but it sets up a blood condition which renders the bird able to combat the onslaughts of the bacillus and defeat them. This blood condition may be transmitted to the offspring.

If B.W.D. is not hereditary there seems no reason to believe that B. Pullorum is not present in the atmosphere, and becomes active on finding a favourable host. Insanitary conditions and improper feeding reduce a chick's resistance, and render it a suitable host, in which the bacillus thrives, and gives off toxins which finds their way into the blood system of the chick. If this chick survives and lays eggs, which are hatched, the resulting chicks will, owing to the condition of the blood, be more susceptible to harbour the B. Pullorum than the parent, and so on.

Because B.W.D. does not develop in a chick from infected stock, it does not necessarily follow that the chick was not infected. It may have been infected, but the conditions were such that the chick developed sufficient resistance, because the blood readily attained a condition to combat the toxins and suppress them.

Yours truly,

R. McKENZIE.

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same lines, there are three farms exactly alike running side by side of 2,000 each. If I describe one section and its working, I shall be describing them all, as everything is in triplicate. There are about 34 acres of land to deal with, one acre being occupied by the six cottages and gardens of the operatives, 33 are left. Eleven acres are, therefore, occupied by each section of 2,000 birds, and apportioned as follows:—Ten acres are allocated to the laying houses; half-an-acre of the ten acres is required for the breeding flocks of 50 each, the other 9½ acres are divided, as far as possible, into three equal enclosures or paddocks.

On January 1st in any year one of the enclosures will be stocked mainly with pullets of the previous year; one will contain hens, and one will be empty, and resting. There are seven or eight houses in each enclosure, according to their size. On this old farm we have houses designed to take 175 birds, 100 birds and 85 birds; the average size of the flock is 130. It would be better to have had uniformity, and with three new farms with which I have been interested, the houses are all of the same design, and contain 100 head each.

In the enclosures the seven or eight flock all range together, but each flock keeps to its own house.

(*To be Continued*).

Ministry of Agriculture and Fisheries.

English and Welsh Stock Poultry Laying Records.

(S. P. L. R.)

The following are the draft regulations of the Ministry of Agriculture in relation to English and Welsh Stock Poultry Laying Records.

It should be definitely understood that the proposed regulations are merely in draft form and are subject to amendment on point of detail.

Up to the present time the National Poultry Council has not had the draft Scheme before it, and the understanding has been that when approved by the authorities the draft Scheme shall be submitted to the National Poultry Council and the Poultry Industry generally.

DRAFT REGULATIONS.

Entries.

1.—Only pure bred stock poultry of a standard breed recognised by the Poultry Club, owned and kept by a breeder resident in England or Wales, and which, at the preliminary inspection made by the Ministry's Officer, are considered by him to be sufficiently typical of their breed, will be accepted under the Scheme. No bird showing any symptom of an infectious disease will be accepted, and if any applicant enters birds which, within his knowledge, are suffering from one or more of the infectious diseases set out in the Appendix to these regulations, he will render himself liable to permanent exclusion from the Scheme.

2.—No entry by any breeder of less than 20 birds of any one breed will be accepted, and the fact that a breeder has entered 20 birds or over of one breed will not enable him to enter less than 20 of another breed. Any larger number than 20 of one or more breeds may be admitted at the Ministry's discretion.

3.—Application for admission must be made upon the proper entry forms, which may be obtained free of charge and postage, from the Ministry of Agriculture and Fisheries, 10, Whitehall Place, London, S.W.1.

4.—Entries must be received by the Ministry on or before the 1st September, 19..., and must be accompanied by the proper fees, otherwise they will not be considered for the Recording Year, 19....

5.—Entries must be made of at least 50 per cent. of the pullets constituting the applicant's total potential breeding stock in each breed entered. Entry of second year hens is optional, but not less than 20 of these hens of any one breed will be accepted.

6.—The minimum entry fee payable by the applicant is £5, which covers the first 50 birds; 6d. per bird must be paid for the next 450 birds; 4d. per bird for the next 500 birds; and 3d. per bird for birds entered in excess of one thousand. These fees are for the Recording Year 19..., and may be altered in following years. The amount of the fees must in every case be forwarded to the Ministry with the entry form.

7.—If any entry is refused by the Ministry, or only accepted in part, the proportional amount of the fees paid will be returned to the applicant. No fees will be returned to any member who withdraws after entry or admission, unless the consent of the Ministry is previously obtained to such withdrawal, and then the portion of such fees to be returned will be decided by the Ministry. No fees will be returned, however, in the case of a member, who, after a previous admission, may be excluded from the Scheme on account of a breach of the regulations or misconduct by that member or his agent in connection with the Scheme.

8.—Applicants must arrange for the birds which they have entered to be conveniently penned up for inspection and handling by the Ministry's Officer on the date of the preliminary inspection of applicant's farm and stock. As long notice as possible will be given by the Ministry or its Officers to applicants of the date of this inspection.

9.—Trap-nests of an efficient type and in proper working order must be provided and maintained by the applicant at the rate of at least two trap-nests for every 7 birds in the case of flocks up to 500 birds, and at the rate of at least one trap nest for every four birds in the case of flocks of over 500 birds. Applicants must satisfy the Ministry's Officer, at the time of the preliminary inspection, that sufficient labour is available and will remain available during the Recording Year to carry out the trap nesting and recording efficiently.

10.—The Ministry's Officer will require to be satisfied at the time of the preliminary inspection, and at subsequent inspections, that adequate housing, runs, feeding and management are provided, and will continue to be provided, during the Recording Year for the birds entered under the Scheme.

11.—As soon as practicable after the preliminary inspection has been made by the Ministry's Officer, each applicant will be informed by the Ministry whether his entry has been accepted in whole or in part, or if it has been refused.

Recording.

1.—A continuous trap-nest record must be kept by the owner or his agent of each bird accepted under the Scheme during the period from October 15th, 19..., to October 14th, 19..., inclusive. The daily record so obtained must be entered daily on the duplicated Weekly Record Sheet supplied by the Ministry, and copies of these Record Sheets, signed by the member, must be sent at the end of each week to the Ministry, so as to reach the Ministry's Office, 10, Whitehall Place, London, S.W.1, not later than the Tuesday in the following week.

2.—Each bird accepted will be ringed on each leg by the Ministry's officer, prior to the commencement of the recording year, with a numbered and sealed ring in duplicate. Any of these rings which may fall off and be recovered, and the rings from any bird which may die during the recording year, must be returned to the Ministry's officer on his next visit. As an alternative each bird may be marked by tattooing in the wing.

3.—Eggs laid outside the trapnests must not be credited to any particular bird, but must be duly recorded in the Weekly Record Sheet in the column provided for that purpose. Soft-shelled, double-yolked, and other abnormal eggs must be recorded, but must be identified as such in the record sheet.

4.—An officer of the Ministry will from time to time make unannounced visits to each member's premises for the purpose of checking the recording of the birds under the scheme, and in order to satisfy the Ministry that all the regulations and conditions of the scheme are being complied with. On the occasion of these visits the Ministry's officer will, as far as possible, himself trapnest the birds under the scheme and weigh the eggs of individual birds. The member must give this officer any information on any point connected with the scheme which the officer may require, or which may be relevant to the working of the scheme.

Weighing of Eggs.

1.—As soon as 165 eggs have been recorded under the scheme from any bird, and provided this number is recorded on or before the 4th October, 19..., the next six eggs laid by that bird, if laid before October 15th, 19..., must be weighed in bulk and their total weight duly recorded on the Weekly Record Sheet by the member or his agent.

2.—As soon as 215 eggs have been recorded from any bird under the scheme, provided this number is recorded on or before

4th October, 19..., the next six eggs laid by that bird, if laid before October 15th, 19..., must be weighed in bulk and their total weight duly recorded in the Weekly Record Sheet by the member or his agent.

3.—A weighing machine approved by the Ministry's officer must be provided by the member and kept on his premises. This machine must be capable of weighing up to 16 ozs. to the nearest 1/16th of an ounce.

4.—It is not necessary for the purposes of this scheme to weigh the eggs of any bird from which 165 have not been recorded on or before 4th October, 19....

Publication of Records.

An official report will be published by the Ministry at the end of the recording year, which will contain the following information:—(a) The name and address of each member. (b) The breed, number and approximate age in years of the birds entered by each breeder. (c) The laying record of each bird qualifying for a certificate and the average record of the remainder. (d) The average weight of certain individual bird's eggs as indicated by the method prescribed under the scheme. (e) A statement as to the certificates awarded to breeders in respect of individual birds.

A copy of this official report will be sent to each member.

Issue of Certificates in respect of Individual Birds.

At the end of the year the Ministry will issue to members certificates in respect of individual birds (excepting that no certificate will be issued in respect of any bird from which 175 eggs have not been recorded on or before 14th October, 19..., or which fails to produce at least twenty eggs during the period October 15th, 19..., to December 31st, 19..., inclusive), as follows:—

(1) First-class certificates in respect of individual birds which during the recording year produce 225 eggs or over, and whose eggs show an average weight under the method prescribed by the scheme of 2 1/16th ozs. in the case of pullets, and 2 1/8th ozs. in the case of second-year hens.

(2) Second-class certificates in the case of individual birds which produce 175 eggs or over during the recording year, and whose eggs show an average weight under the method prescribed by the scheme of 2 1/16th ozs. in the case of pullets, and 2 1/8th ozs. in the case of second-year hens.

(3) A charge of 1/- will be made by the Ministry for each certificate so issued.

General.

1.—As soon as possible after the close of the recording year the Ministry will send to each member an annual statement, compiled from the relative Weekly Record Sheets, showing the total eggs recorded under the scheme for each of his birds during the past year. This annual statement, if accepted as correct by the member, must be signed by him and returned to the Ministry as soon as possible. The member must also make a sworn affidavit before a Commissioner of Oaths, stating that all the weekly records which he has, from time to time, sent to the Ministry, and from which the annual statement has been compiled, are accurate and true to the best of his knowledge and belief. This affidavit, properly executed, must be sent to the Ministry along with the annual statement. No publication respecting any member's birds will be made in the official report, and no certificates for individual birds will be issued by the Ministry to any member unless this annual statement, duly signed, and together with the sworn affidavit properly executed, are received by the Ministry on or before the appointed date. This date will be notified to members in due course.

2.—Any bird accepted under the scheme, and which subsequently develops an infectious disease, must at once be separated from its pen, and effectively isolated. The member must at once inform the Ministry of any such occurrence.

3.—If any member endeavours in any way, either by his own action or through the action of his agent, to falsify the records kept under the scheme, or wilfully supplies the Ministry, or its officers, with misleading or untrue information, or attempts to mislead the Ministry or its officers by withholding relevant information, such member will become liable to immediate expulsion and permanent exclusion from the scheme.

4.—If any member, either through his own action or the action of his agent, obstructs or attempts to obstruct an officer of the Ministry in the performance of his duty, he will become liable to immediate expulsion and permanent exclusion from the scheme.

5.—If any member fails to carry out one or more regulations of the scheme in a manner satisfactory to the Ministry, he will become liable to suspension for the remainder of the recording year, but not necessarily to future exclusion.

6.—In the event of the Ministry finding it necessary to suspend or to expel any member from the scheme, neither the member's name nor the records made of his birds will appear in the official report.

7.—The Ministry reserves the right to expel at any time any member from the scheme without giving any reason to the member for such action.

8.—No member under the scheme is permitted to advertise to the effect that his poultry or his poultry farm is inspected, approved, supported, subsidised, or recognised by the Ministry. He is, however, permitted to advertise himself as a member of the English and Welsh Stock Poultry Laying Records Scheme of the Ministry of Agriculture and Fisheries; to advertise the number and description of his birds which have been accepted under the scheme, and, when available, their official records and particulars of the certificates (if any) gained for individual birds.

9.—The Ministry's decision on any matter connected with the scheme will be final.

LEICESTERSHIRE COUNTY COUNCIL EDUCATION COMMITTEE.

COUNTY LAYING TRIALS.

Fourth Monthly Period—January 11—February 7th, 1926.

Despite the severe weather conditions, the egg production in the above test during the fourth period has steadily increased, 2,255 eggs were laid, bringing the total to date to 7,665. One bird died during the sixteenth week, but apart from this the remaining birds have kept in excellent health. Two birds laid 26 eggs each in the 28 days. The positions of the leading pens are as follows:—

Figures are Eggs and Points respectively.

Section A. Light Breeds (Five Birds).—Mrs. R. Crawford (W.L.), 322, 3301; Mr. Geo Ryle (W.L.), 292, 2947; Mr. A. C. Moore (B.L.), 260, 2610; Mr. H. B. Howe (B.Min.), 262, 2538; Crawford and Dowell (W.L.), 240, 2399.

Section B. Heavy Breeds (Five Birds).—Mr. Geo. Ryle (W.W.), 343, 3492; Mr. H. B. Howe (W.W.), 363, 3398; Mr. J. M. Salmon (R.I.R.), 307, 3197; Mrs. E. Ball (R.I.R.), 313, 3182; The Misses Rankin (W.W.), 346, 3129; Mr. S. Ryle (R.I.R.), 287, 2993.

Section C. Any Breed (Two Birds).—Mr. B. J. Buckler (R.I.R.), 152, 1568; Miss Dear (R.I.R.), 113, 1202; H. Glover (W.L.), 109, 1146; S. Ryle (R.I.R.), 103, 1141.

THE MIRFIELD AND DISTRICT LAYING TEST REPORT.

Report for Third Period.

Figures are Eggs and Points respectively.

Light Pen Section (Three Birds).—H. Buckley (W.L.), 80, 662; H. Cowgill (W.L.), 55, 434; A. Mappin (W.L.), 52, 397; Davey and Son (B.L.), 52, 383; N. Firth and Son (W.L.), 40, 290; E. Tate (W.L.), 22, 169.

......**Heavy Pen Section (Three Birds).**—J. Raistrick (R.I.R.), 98, 720; A. G. V. Ermen (W.W.), 84, 597; A. G. V. Ermen (R.I.R.), 76, 550; H. Buckley (R.I.R.), 72, 509; Scott Bros. (W.W.), 63, 495; G. Furness (R.I.R.), 63, 462.

Single Bird Section (Light).—G. Shenton (An.), 31, 240; C. F. Fox (W.L.), 26, 205; N. Firth (W.L.), 20, 161; A. Blackburn (W.L.), 19, 144; H. Armitage (W.L.), 15, 114; E. Saxton (W.L.), 16, 113.

Single Bird Section (Heavy).—W. Saxton (W.W.), 56, 453; N. Firth (W.W.), 53, 392; J. Raistrick (W.W.), 47, 345; Scott Bros. (W.W.), 40, 312; Scott Bros. (R.I.R.), 38, 298; W. Saxton (R.I.R.), 38, 291.

Scientific Poultry Breeders' Association.

APPLICANTS FOR MEMBERSHIP.

Mason, Mrs. V., Manor Farm, Norton, Daventry.
Tilletson, A., 3, Grange View, Eastburn, Nr. Keighley, Yorks.
Lamkin, W. J., Meadvale, Sandon, Nr. Chelmsford, Essex.
Giles, G., Beech, Alton, Hants.
Birrie, Mrs. H., New Barn, Horwood, Bideford, N. Devon.
Clark, W., Ashville P.F., Fishers Pond, Eastleigh, Hants.
Price, E. S., Ivy Street, Birkenhead.
Revell, E., The Laurels, Whitchurch, Hants.
Howard, J., Camplebridge, Thornhill, Dumfries-shire.
Bowers, A. H., 93, Hazelbank Road, Catford, S.E.6.
Hodgson, L., 22, Northcote Street, Farsley, Nr. Leeds.
Biggs, James, Redbank, Halsall Road, Birkdale, Southport.
MacEwan, Mrs. M. B., Turks Croft, Ifield, Nr. Crawley, Sussex.
Nott, Mrs. L. W., Barden Park Cottage, Tonbridge, Kent.
Sherwood, W. A., 6, Coastguard Station, Newhaven, Sussex.
Pratt, Mrs. V. A., The Hawthorns, Darras Road, Ponteland, Newcastle-on-Tyne.
Arnold, F., Hale Bank Road, Hale Bank, Nr. Widnes, Lancs.
Pritchard W. L., Earle Cottage, Earlestown, Lancs.
Stephens, Mrs. E., Park View, Tewkesbury.
Holden, W., 21, Silchester Road, North Kensington, London, W.10.
Munden, J. R., 28, Ferguson Avenue, Surbiton, Surrey.
Allen, R. H., Rowston Manor, Digby, Lincoln.
Bartlett, E., Iford P.F., Iford, Bradford-on-Avon, Wilts.
Willis, H., Holding 49, Barnham Road, Barnham, Sussex.
Methven, J., Stockethill P.F., Aberdeen.
Henson, L., Easthorpe Street, Ruddington.
Seed, H., Greenbank, Cleckheaton, Yorks.
Davies, Mrs. C. le, Carron, Bredon's Hardwick, Tewkesbury.
Courage, R. G., 60, Carden Place, Aberdeen.
Turner, C. G., Ex-Shel P.F., Hovefields Avenue, Wickford, Essex.
Farndale, Miss G., Tancred Cottages, Scorton, Nr. Darlington.
Garton, J., Beechdene, Lime Grove, Forest Town, Mansfield, Notts.
Lockyer, W. J., River View, North Street, Emsworth, Hants.
Greaves, Hon. Mrs., Lambourne Place, Abridge, Essex.
Bull, Mrs., Bel Air, St. Saviour's, Jersey, C.I.
Story, H. W., Oakwood, Burwash Common, Sussex.
Dymott, R., 137, Manor Farm Road, Bitterne Park, Southampton.
De Week, Mrs. E. P., Old Mumford Farm, Kingsnorth, Ashford, Kent.
Wiggin, G., "Cattibrooke," Chalk House Green, Nr. Reading.
Stack, A. M., Moran, Northolt, Uxbridge.
Windsor, T., Jubilee Cottage, Westcombe, Evercreech, Somerset.
Teale, W., 39, Woodhall Avenue, Bradford Moor, Bradford, Yorks.
Titterton, J. A., Whalebone Hall, Stowmarket, Suffolk.
Boucher, F. R., Hungerford Farm, Preston Bagot, Henley-in-Arden.
Roffey, Lady, Batnors Hall, Lingfield, Surrey.
Cotton, Miss D., Northwick Hall, Worcester.
Rowe, W. T., Ashgrove P.F., Ashgrove House, Portadown.
Ard, Mrs. J. H., Balahaigh, Etchingham, Sussex.
Ayrton, Charles, Prospect House, Bradley, Keighley, Yorks.
Fry, E., "Broadhurst," St. Philip's Avenue, Worcester Park, Surrey.
Robinson, W. G., Ivy Lodge, Alexandra Road, Burnham-on-Crouch.
Kneebone, T., Rosemundy, St. Agnes, Cornwall.
Grainger, J. P., Cocker House, Eastwood, Notts.

LANCASHIRE FEDERATION OF UTILITY POULTRY SOCIETIES' ANNUAL LAYING COMPETITION.

Held at the Lancashire County Council Farm, Hutton, under the supervision of Mr. G. H. Dobbin, the County Poultry Instructor. The health of the birds are A1. The winners of the monthly ribbons are as follows:—

Best Pen in each Section.—P. Williamson, F. C. Tomlinson, Mrs. S. Sefton, W. Wearden and Sons.

Best Individual Bird in each Section.—R. Beesley, J. Ashworth, Mrs. S. Sefton, A. G. V. Ermen, W. Wearden and Sons, J. W. Halstead, C. Hargreaves.

The following are the leading positions in each section, showing the number of eggs and points respectively.

Fourth Month's Report—7th January, 1926, to 3rd February, 1926.

Section 1. White Leghorns. Large Breeders (Three Birds).—H. Cook, 214 1425; P. Williamson, 196, 1393; R. Beesley, 154, 1268; A. Heap, 214, 1264; C. Morley, 173, 1097; A. T. Walker, 175, 1047.

Section 2. Any Other Variety, Light. Large Breeders (Three Birds).—F. C. Tomlinson, 160, 1238; J. P. Willacy, 153, 1044; J. Ashworth, 109, 905; S. Street-Porter, 86, 668; Riley Brothers, 90, 589; W. Hammett (one dead), 88, 542.

Section 3. White Wyandottes, Large Breeders (Three Birds).—Dr. J. E. Helm, 230, 1642; H. Sutton and Sons, 224, 1641; G. H. L. Armstrong, 180, 1393; J. Rainford (one dead), 179, 1344; J. T. Finn, 174, 1253; R. Holden, 172, 1199.

Section 4. Any Other Variety, Heavy, Large Breeders (Three Birds).—R. Moon and Son, 208, 1660; T. B. Grice, 198, 1588; J. Cobham, 201, 1546; J. Basnett, 212, 1500; A. T. Walker, 197, 1387; H. Booth, 173, 1363.

Section 5. Small Breeders, Single Birds, Light Breed.—J. W. Halstead, 78. 617; W. R. Robinson, 67, 511; J. Thwaites, 71, 493; H. West, 68, 492; J. T. Halcroft, 50, 380; H. West, 52, 380.

Section 6. Small Breeders, Single Birds.—T. Plumb, 63, 482; C. Hargreaves, 72, 474; G. A. Walstenholme, 57, 443; J. W. Pearson, 72, 454; A. D. Walton, 50, 322; Lort and Tripper, 40, 321.

CHESHIRE COUNTY COUNCIL.

EGG-LAYING COMPETITION (1925-26) SINGLE BIRD TEST.

Report on Results for Fourth Month—January 7th, 1926, to February 3rd, 1926.

The flock average for the month is 12.95 eggs per bird. The average for the light breeds is 13.2, and for the heavy breeds 12.8 per bird. Three birds in the light breed section and seven birds in the heavy breed section did not lay. Three birds were broody.

SUMMARY OF LEADING PENS.

Figures are Eggs for Period. Total Points to date respectively.

Light Breeds.—A. Dixon (W.L.), 20, 875; A. D. Tobler (W.L.), 20, 832; Mrs. N. Viney (W.L.), 19, 797; Campbell Sheen (W.L.), 24, 770; Mrs. N. Viney (W.L.), 19, 751; Mrs. E. Johnson (W.L.), 18, 742.

Heavy Breeds.—E. Paterson (B.O.), 18, 896; Mrs. N. Viney (W.W.), 20, 860; J. Riley (W.W.), 19, 708; J. Hignett (W.W.), 8, 699; C. Davenport (R.I.R.), 14, 692; Mrs. Mortimer (W.W.) 19, 690.

HANTS COUNTY LAYING TRIALS.

Report for Fourth Period Ending February 3rd, 1926.

Figures are Eggs and Points respectively.

Section A.—Messrs. F. and C. Brundett (W.L.), 214, 2118; A. F. C. Holdaway (W.L.), 211, 2069; Capt. R. Mackenzie (W.L.), 20, 1922; A. F. C. Holdaway (W.L.), 182, 1707; Mr. B. A. King (W.L.), 160, 1528; Mr. H. Record (W.L.), 172, 1505.

Section B.—Miss W. B. Clarke (R.I.R.), 226, 2126; Mr. J. H. Thompson (W.W.), 185, 1739; Mrs. G. Harper (R.I.R.), 185, 1575; Mrs. T. P. Cordery (W.W.), 144, 1398; Lord Landsworth, Agricultural College (L.S.), 147, 1387; Capt. R. Mackenzie (W.W.), 136, 1373.

CORRECTION.

Owing to a printer's error in the advertisement of Messrs. Morris Hammond, Ltd., in our issue of February 10th, the number of trapnests used on this farm was given as 100 instead of 1,000. We regret the mistake, which has now been corrected in the advertisement.

NATIONAL EGG-LAYING TEST, 1925-26.

REPORT FOR THE THIRD MONTH,
27th DECEMBER, 1925, TO 23rd JANUARY, 1926.

Very unfavourable weather conditions prevailed throughout the greater part of the 3rd month, and the daily collections at one time showed a falling off of over 170 eggs a day, but with the disappearance of frost and snow production rose rapidly, and the motnth closed with an average of 13.31 eggs per bird, as against 11.93 for the previous month. The highest daily collection was 809 on the 7th day of the month, and the lowest 634 on the 21st day. The heavy breeds again did best, all showing an improvement, and the highest average (17.34 per bird) was made by Buff Rocks, followed by White Wyandottes with an average of 14.77. Amongst the light breeds White Leghorns improved on their previous month's performance with an average of 13.43, but most of the others showed a slight falling off.

A further improvement is to be reported in the size of eggs laid, the percentage of first grade (2 ozs.) rising to 82.31.

Six birds died during the month—none from infectious disease—and the death-rate for the three months to date is 1.2 per cent.

J. N. LEIGH.

EGG PRODUCTION OF LEADING PENS.

Section 1.—Championship (10 Pullets).—A. K. Speirs Alexander, Roughton. Norfolk, 564 eggs; J. E. Hughes, Ware, Herts, 471; Miss N. B. Maddison, Dane Hill, Sussex, 461; R. A. and A. M. Johnson, Chalford, Glos., 457; Leslie Williams, Liss, Hants, 450; The Misses Ransford, Finchampstead, Berks, 445.

Section 2.—White Leghorns (5 Pullets).—Worcestershire Poultry Farm, Tardebigge, near Bromsgrove, 288 eggs; John Potter, Worsley Mesnes, Wigan, Lancs., 261; W. Sharp, Bell-Busk, via Leeds, 249; H. R. Hunter, Twyford, near Winchester, 242; Sydney Smith, Clifton, Notts., 241; Brig.-Gen. A. C. H. James, Bletchingley, Surrey, 237.

Section 3.—Black Leghorns (5 Pullets).—Richard Rodwell, Nelson, Lancs., 246 eggs; Frank Snowden, Cowling, Yorks., 217; W. P. White, Red Scar, Colne, Lancs., 211; Miss Mallam and Mrs. Gifford, Sparshot, Wantage, Berks. 208; L.-Col. W. G. Lucas, Beech Place, Stowmarket, 184; I. Margerison, Towneley, near Burnley, 185.

Section 3a.—White Bresse (5 Pullets).—John Thornhill, Great Longstone, 206 eggs; E. R. Townley, Woodcote, Oxon, 202; H. R. Hunter, Winchester, 194; Sir Charles McGrigor, Bart., Bake, St. Germans, Cornwall, 183; Mrs. N. Wilkinson, Saxmundham, 152; K. A. Crawford, Dilham, Norwich, 146.

Section 4.—Any Other Light Breed (5 Pullets).—J. R. Joy and Co., Tunbridge Wells, Sussex, 206 eggs; Stanley Street-Porter, Ely, Cambridge, 203; Hon. Marjorie Cross, Broughton-in-Furness, 197; J. H. Thompson, Alton, Hants, 197; Miss E. Cavanagh, Terenure, Dublin, Ireland, 168: Lady Latymer, Fordingbridge, Hants, 147.

Section 5.—White Wyandottes (5 Pullets).—Arthur Gawthropp, Quinton Manor, Northampton, 288 eggs; S. and T. Greenall, near Grantham, Lincs., 203; G. H. Rayner, Grantham. Lincs., 287; Alvaston Poultry Farm, Alvaston, near Derby, 284; Capt. J. Thompson, Belvidere Paddocks, Shrewsbury, 283; S. E. S. Burnett, Arbroath, Scotland, 280.

Section 6.—Rhode Island Reds (5 Pullets).—J. B. V. and W. Cummings, Carlops-by-Pencuik, Scotland, 270 eggs; A. H. Donkin, Teddars Lea, Shorncliffe, 235; Gettern Model Poultry Farm, Ainsdale, near Southport, 217; J. Ashworth, Withnell, near Chorley, Lancs., 216; W. and T. Salt, Enderby, Leicester, 213; Edward Carter, Backford, near Chester, 218.

Section 7.—Sussex (5 Pullets).—Mrs. E. M. L. Knight, Odstock, Salisbury, 231 eggs; F. Rossall-Sandford, Shrewsbury, 199; Edward Clough, Uplyme, near Lyme, Regis, 194; Brig.-Gen. Kincaid-Smith, Clacton-on-Sea, Essex, 188; Mrs. John Godden, West Coker Manor, Yeovil, 194; Wilson Beattie, Rothersthorpe, Northampton, 185.

Section 8.—Any Other Heavy Breed (5 Pullets).—Miss Harrison Bell, Welwyn, Herts, 237 eggs; Miss C. Beck, Great Amwell, Ware, 227; Miss P. Mills, Bishops Castle, Salop. 213; A. A. Plimpton, Beverley, E. Yorks, 199; Charles Prior, Hill Farm, Ropley, Hants, 193; Mrs. Ward-Jackson, Kingsland, Herefordshire, 191.

Section 9.—For Small Breeders (2 Pullets).—J. M. Johnston, Exbury, Southampton, Hants, 120 eggs; Fred Deakin, Penyffordd, near Chester, 118; E. Fownes, Sunrise, Hanworth, Middlesex, 115; G. E. Pearson, Epperstone, Notts, 115; Walter Westwood, Shotton, near Chester, 98; M. W. Brightmore, 57, Sketchley Road, Burbage, Leics., 95.

EGG-LAYING TEST.

THE GLOUCESTERSHIRE REPORT.

For Month ended January 29th.

The following is the report on the Gloucestershire Laying Test (under the supervision of Mr. L. G. Price, County Instructor in Poultry Keeping) for the fourth month ended January 29th:—

During the month 4,025 eggs have been collected against 3,877 the previous month, giving a total of 16,306 for the four months and an average of 50.9 per pullet. The method of scoring changes this month, and Grade A. and B. eggs count four and three points respectively.

The weather for the month under review has been exceptionally wet. Points of interest are that the light breeds show the greater proportion of small eggs whilst the Buff Rocks appear to have given splendid results. The health of the birds is good.

Section A. (1). White Wyandotte (Professional).—T. L. Davies 1847 pts.; G. W. H. Roberts, 1837; H. W. Fowlse, 1542; P. M. Hinton, 1532; H. Ludlow Hewitt, 1470; Miss D Jones, 1274.

Section A. (2). A.O.V. Heavy Breed (Professional).—C. D. Pratt (B.R.), 1916 pts.; G. B. Metcalfe (R.I.R.), 1679; G. H. H. Simmons (B.R.), 1652; D. K. Nuttall (R.I.R.), 1579; M. C. Beale (R.I.R.), 1536.

Section A. (3). White Leghorn (Professional).—Sherborne Park P.F. (36), 1526 pts ; G. W. H. Roberts, 1488; Bibury B.F., 1408; J. L. Brown. 1408; Miss H. Baylis, 1398; Sherborne Park P.F. (1), 1396.

Section A. (4). A.O.V. Light Breed (Professional).—Capt. W. E. Anderson (An.), 1401 pts; F. W. Clifford (B.L.), 1232; J. L. Brown (An.), 1191; Churchdown P.F. (An.), 868; E. S. Coley (Ex Leg.), 775.

Section B. (1). A.V. Heavy Breed. (Confined to owners of not more than 50 laying head).—G. D. Bond (W.W.), 1824; E. A. Craft (L.S.), 1557; W. P. Merrett (W.W.), 1545; E. G. Brown (W.W.), 1079; J. C. Dee (R.I.R.), 851; Miss M. Clarke (R.I.R.), 736.

Section B. (2). A.V. Light Breed. (Confined to owners of not more than 50 laying head).—E. G. Brown (W.L.), 927 pts.; C. E. Skirten (W.L.), 769; F. E. Fowler. (B.L.), 761.

Pen Duck Section. (Four ducks to a pen).—G. B. Young (K.C.), 184 pts.; G. H. H. Simmons (K.C.), 173; S. J. Phillips (K.C.), 167; Major J. G. Dugdale (K.C.), 160; Mrs. H. L. Hanks (K.C.), 133; F. W. Clifford (K.C), 58.

SINGLE PEN SECTION.

Section 1. White Leghorns.—L. Grist (14), 419 pts.; A. Daunton, 351; Fielding Smith (4), 325; Lieut.-Colonel Hancock, 284; Fielding Smith (45), 255; Misses Ransford (17), 240.

Section 2. White Wyandotte.—H. W. Stephen (30), 421 pts.; Miss H Baylis, 388; L. Grist, 354; A. W. Harrison, 338; H. W. Fowles (39), 335; Philip Clapham, 324.

Section 3. Rhode Island Red.—F. A. Welch, 388 pts.; M. C. Beale, 341; A. Daunton (46), 203; Messrs. Wood and Bacon, 201; W. Bingle, 170; Miss M. Lawrence, 155.

Section 4. A.O.V. Light Breed.—R. Sysum (B.L.), 258 pts.; White and Martyn (B.L.), 129; Churchdown P.F. (B.L.), 100.

Section 5. A.O.V. Heavy Breed.—Mrs. E. Weinholt (Aus. Orp.), 379; G. H. H. Simmons (Bf. Rk.), 327; F. R. Welch (L.S.), 299; Philip Clapham (Bf. Rk.), 290; J. G. Herbert (B'Vtld), 288; G. B. Young (L.S.), 285.

Section 6. Ducks.—H. L Hanns, 105 pts.; Major J. G. Dugdale (3), 99; H. W. Fowles (2), 90; Mr. and Miss Streatfield, 87; Major J. G. Dugdale (4), 77; F. W. Clifford, 72.

MIDDLESEX AGRICULTURAL EDUCATION COMMITTEE.

COUNTY LAYING TRIAL, 1925-26.

Report for Fourth Period—January 7th to February 3rd, 1926.

Health.—Apart from two cases of cold (Nos. 131 and 132) health has been satisfactory, and the whole flock look particularly fit. One death is recorded, No. 132, of pneumonia, on January 19th. Post-mortem examination of the carcase revealed no trace of infectious disease.

Moulting and Broodiness.—There are still six cases of moulting, nearly all slight, and two birds were confined to the broody coop for a few days.

Despite a temporary set-back owing to the severe weather during the second week of the period there has been a further improvement in egg production. The lowest and highest daily collections were 57 on the 16th January, and 87 on February 3rd.

SUMMARY OF RESULTS.

Figures are Eggs and Points respectively.

The leading pens in each section are:—

Section I. (A.). Light Breeds. (Five Birds).—W. Poupart, Pen 5 (B.B.), 216, 1841; Mrs. Fowler, Pen 3 (An.), 174, 1751;

Section 1 (B.) Heavy Breeds (Five Birds).—Sir J. Fitzgerald, Pen 15 (L.S.), 300, 2916; E. Fownes, Pen 14 (W.W.), 288, 2572

Section 2. Teams (Five Birds).—Hounslow, Pen 23, 228, 2127; Bethnal Green, Pen 24, 184, 1820.

Section 3 (A.). Single Birds. Light.—J. N. Williams, No. 137 (W.L.), 73, 631; R. N Baker, No. 139 (W.L.), 70, 582.

Section 3 (B.). Single Birds. Heavy.—F. E. Robinson, No. 159 (W.W.), 63, 620; C. G. May, No. 143 (W.W.), 65, 540

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 19th FEBRUARY, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is in fair supply and generally sells at about late rates, the average quotation again being 11s. 11d. per cwt. Imported is in little demand and cheaper at all markets, No. 1 Manitoba averaging 14s. 5d. per cwt. as compared with 14s. 11d. in the previous week. Both home-grown and imported barley meet a limited trade, but recent prices are generally maintained, except at London, where imported feeding descriptions are from 6d. to 10d. per cwt. cheaper on the week. Oats attract little attention and some imported varieties are slightly easier. English are cheaper at Bristol, but elsewhere recent figures are maintained. Good supplies of maize meet a variable trade at the different markets, and Argentine now averages 7s. 8d. per cwt., an increase of 2d. per cwt. on the week.

Milling offals are in little request, and both bran and coarse middlings are again cheaper, the former averaging about £7 and the latter £7 5s. per ton, as compared with £7 5s. and £7 9s. in the preivous week. Meals generally are a quiet trade, and several descriptions are reduced in price at Hull and London. Demand for oil cakes is limited, but linseed cake sells at recent prices, while cotton seed cake, in some instances, is reduced 2s. 6d. per ton.

MILLERS' OFFALS.—Bran (British): Bristol, £7 10s; Hull, £6 17s; Liverpool, £7 5s; London, £6 10s. Broad Bran: Hull, £8 7s; London, £8 12s. Middlings:—Fine (Imported): London, £8; Coarse (British): Bristol, £8; Hull, £7; Liverpool, £7 5s.; London, £6 15s. Pollards (Imported): Bristol, £6 2s.; Hull, £5 15s; Liverpool, £5 17s; London, £6. Rice Bran: Bristol, £7; Liverpool, £6 12s; London, £6 15s. MEAL.—Barley Meal: Bristol, £8 17s; Hull, £9 7s; London, £9 12s. Maize Meal: Bristol, £9 10s; Hull, £8 10s; Liverpool, £9; London, £9 5s. Maize Meal (S. African): Bristol, £9; Hull, £7 17s; Liverpool, £7 17s; London, £8. Maize Germ Meal: Hull, £8 15s.; London, £8. Maize Gluten Feed: Bristol, £10 10s; London, £9 10s. Locust Bean Meal: Bristol, £9 15s; Hull, £9 15s; Liverpool, £9 10s; London, £9 12s. Bean Meal: Bristol, £13 10s; Hull, £11 12s; London, £12 5s. Fish Meal: Bristol, £21; Hull, £20 10s; Liverpool, £19; London, £19.

EGGS AND DEAD POULTRY.

British new-laid eggs have declined in price, but recent figures have been fully maintained for Irish and nearly all imported varieties. Good quality dead poultry is readily saleable at fully late rates, while other grades are more difficult to clear.

Week-end Prices—Eggs (per 120): British, 22s 6d, 19s 3d; Irish, 22s 0d, 21s 0d; Danish, 22s 0d, 21s 3d; Dutch, brown, 23s 9d, 22s 6d; Dutch, mixed, 22s 3d, 21s 3d; French, brown, 23s 6d, 22s 0d; French, mixed, 19s 6d, 18s 6d; Belgian, 21s 9d, 20s 9d; Italian, 19s 6d, 18s 9d; Egyptian, 10s 6d, 9s 6d; Russian, 14s 6d, 13s 6d; Chinese, 14s 6d, 11s 0d; Argentine, 14s 6d, 12s 6d; Polish, 14s 6d, 13s 0d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 9d, 1s 6d; Irish, 1s 4d, 1s 2d; Others, 1s 6d, 1s 0d. Ducks, 1s 6d, 1s 3d. Geese, 1s 3d, 1s 1d. Turkeys, 1s 6d, 1s 4d.

EGGS.

Per Doz.—Ashford: First, 2s 0d; Second, 1s 10½d. Birmingham: First, 2s 3½d; Second, 2s 3d. Bridgwater: First, 1s 11½d; Second, 1s 9d. Chelmsford: First, 2s 3d; Second, 2s 0½d. Colchester: First, 2s 3½d; Second, 2s 0d. Doncaster: First, 2s 6d; Second, 2s 4d. Dorchester: First, 1s 9d; Second, 1s 8d. Exeter: First, 1s 11d; Second, 1s 10d. Hereford: First, 1s 10d. King's Lynn: First, 2s 1d; Second, 1s 11d. Llandilo: First, 2s 0d. Mold: First, 2s 1d; Second, 2s 0d. Newport (Mon.): First, 2s 0d; Second, 1s 11d. Norwich: First, 2s 4d. Oswestry: First, 1s 10d. Penzance: First, 1s 8d; Second, 1s 7d. Saffron Walden: First, 2s 1½d; Second, 1s 11½d. St. Ives (Hunts): First, 2s 4d; Second, 2s 2d. Salisbury: First, 1s 11d; Second, 1s 10d. Skipton: First, 2s 3d. Swindon: First, 2s 0d; Second, 1s 10d. Truro: First, 1s 9d. Welshpool: First, 1s 10d; Second, 1s 8d. *Carlisle: First, 2s 2d. *Derby: First, 2s 3d. *Ipswich: First, 2s 3d; Second, 2s 0d. *Lincoln: First, 2s 6d. *Shrewsbury: First, 2s 0d; Second, 1s 9d. *York: First, 2s 6d; Second, 2s 4d.

FOWLS.

Per lb.—Birmingham: First, 1s 4d; Second, 10d. Doncaster: First, †6s 0d; Second, †5s 6d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 5d. Llandilo: First, 1s 8d; Second, 1s 5d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First, 1s 4d. Welshpool: First, 1s 5d; Second, 1s 2d. *Derby: First, †6s 6d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d. *York: First, †6s 0d; Second, †5s 0d.

DUCKS.

Per lb.—Birmingham: First, 1s 3d; Second, 1s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Llandilo: First, 1s 8d; Second, 1s 5d. Welshpool: First, 1s 5d. *Ipswich: First, 1s 4d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, February 24th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscription to "EGGS," 12s. 8d. per annum; 6s. 4d. for six months, 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick, Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.

We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

Classified Advertisements.

(PREPAID RATES.)

1d. per word—minimum charge, 1s. 0d.; 13 insertions at price of 12. Bold headlines inserted at an extra charge per insertion according to size as below:—

DAY-OLD CHICKS per line, extra 9d.
DAY-OLD CHICKS, ,, ,, 1s.
DAY-OLD CHICKS ,, ,, 1/6

The number of letters, punctuations and spaces between words should be totalled, when the following table will be of assistance:—

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When the remittance does not cover the size selected, a smaller corresponding size type will be used.

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N.B.—Advertisements, unless accompanied by correct amount, will not be inserted.

Advertisements must be distinctly marked with the Heading under which they are to appear.

Advertisements must be written on a separate sheet of paper, and one side of the paper only.

Name and Address to be counted. In the case of a Box Number being used, the words, "Box." "Eggs," 94, Farncombe Street, London, S.E.16, to be counted as eight words, i.e., making a total extra charge of 1s. 8d. (1s. for Box; 8d. for address) per insertion.

Advertisements must reach this office
FIRST POST FRIDAYS
for insertion in the following Wednesday's issue. Those received after this time will be inserted in the next issue.

PLEASE WRITE CLEARLY, and TO AVOID MISPRINTING OF STRAINS, NAMES AND ADDRESSES. THESE SHOULD BE WRITTEN IN PRINTED CHARACTERS.

Displayed Advertisements.

Ordinary Page, £8 15s. 6d.; Half Page, £4 7s. 9d.: Quarter Page, £2 4s. 0d.; One Column, £2 18s. 6d., Half Column, £1 9s. 3d. Quarter Column, 14s. 9d. One inch, 6s. 6d. Special Inside Pages, 25 per cent. on above rates. Cover and other Special Positions by arrangement. Discounts for Series. Full Scale of Advertising Rates on application.

Advertisements, addressed to Mr. S. H. BURLES, "EGGS," 94, FARNCOMBE STREET, LONDON, S.E.16, MUST REACH US BY FIRST POST FRIDAY MORNINGS, for insertion in following issue. Those received later will be inserted in the next issue.

A DEPOSIT SYSTEM has been adopted for advertisements, and Advertisers are asked to make full use of same. When remitting direct to the Editor on deposit, the full amount of purchase money should be sent, and six penny stamps extra to cover cost of acknowledgment of same. Cheques should be made payable to the Editor and sent direct to The Beeches, Rudgwick, Sussex.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. — R.I. Reds (first pens headed Cockerels direct Boucher), Runner and Khaki-Campbells. Eggs, Chicks, and Stock Birds. List free. Satisfaction insisted on.

Eggs for hatching. Rothschild's Light Sussex, Cam's White Wyandottes, Measures' Rhode Islands, Schimnel's Barnevelders, Hunter's Black Leghorns, Barron's White Leghorns; all direct strains; 6s. dozen; 45s., 100, by return, carriage paid. — Mrs. Porter, Dishley Grange, near Loughborough.

Eggs for hatching from good Utility Stock; various breeds; moderate prices Please write for price list.—Arle Poultry Farm, Cheltenham.

P. B. Adams, East Franklyns Poultry Farm, Hayward's Heath. Sittings, 13s. 6d.; Special Pen, £1 1s. Rhode Island Red, Red Sussex, Light Sussex. Black Leghorns.

Sittings of Buff Rocks, also Light Sussex, from carefully selected birds bred for stamina, type and productiveness; 6s. for 15, unreplaced. I have never had disease on my farm.—Lea, Tenoaks, Ringwood.

BRITISH COLUMBIAN

White Wyandottes, imported direct; large eggs and stamina; winner several contests. Specialist 12 years. Mating List. —Read, Hutton Poultry Farm, East Grinstead, Sussex.

H. D. SIMMONDS, M.S.P.B.A.,
The Abbey, Thorpe-le-Soken, Essex, regrets he is unable to accept any further orders for White Wyandotte Eggs this season, owing to exceptional demand. Please book early for 1927.

75 Per Cent. HATCH GUARANTEED.
If less hatch, all eggs returned replaced free, whether infertile or not. I have confidence in eggs from my stock. Trapnested White Leghorns, with records 200 to 250 pullet year, and 2oz. eggs within two months laying. Also Rhodes, Light Sussex, Silkies, Exhibition Rhodes, and Black Orpingtons. 10s. dozen, or 7s. 6d. dozen, no replacements. Inspection invited. — Geo. Howard. Sperrin Poultry Farm, Folley Road, Stotfold, Baldock.

TOM MARKS and SON,
Oakhill, Somerset, offers Light Sussex and R.I. Red Eggs from trap-nested stock; records from 175 to 256 large eggs. All stock mated are true to colour and type; 12s. 6d. for 15, £3 10s. per 100; clears replaced. Satisfaction guaranteed. See testimonials from satisfied customers in Year Book advertisement.

Capt. BARNES, KENILWORTH

Light Sussex, R.I.R., W Wyandottes, Black Leghorns, W. Leghorns. Eggs, 42s., 100; 23s., 50; 7s., 15. Chicks, prices on application.

COMPARE These RECORDS and PRICES

R.I.R. Pen includes records 251-269, 2¼oz.-2½oz. eggs. L. Sussex, records 219-254; B. Leghorn, records 238-246; W. Leghorn, records 263-285. Mated to tested cocks from high record hens; 9s. per sitting. Chicks double. Mating List free.—Capt. Barnes, Kenilworth (Breeding Station under Ministry of Agriculture).

WHITE WYANDOTTES.

The Sunnycroft strain have been bred on scientific lines, and trap-nested for fourteen generations. Eggs, 10s. and 7s. 6d. dozen.—Fred W. Wait, Sunnycroft, Burton Joyce, Notts.

EGGS.

FOR SALE.

Send for a Sitting of my Reliable L
5s. 9d. for 12. — Scott, Ortonwatervil
Peterborough.

Best White Leghorns Eggs; 6s. 6d. do
no replacement. Cash with order, ca
riage paid. Name your nearest station.
A. Helliwell, Poultry Breeder, 4, We
Parade, Mytholmroyd, Yorks.

Eggs for hatching. L. Sussex, Leig
Rothschild; hen's records 180-220; R.I
Hens, records 200-263, mated to Boucher
sire from 282 dam. All birds trap-neste
Free from disease; 7s. 6d. for 15. — Jone
Coldblow, Bonnington, Ashford, Kent.

Light Sussex and Rhode Island Red
Sitting Eggs from 12s. 6d. doz., infertile
replaced; Chicks double. All breedin
stock trap-nested. Mating List on applica
tion.—J. O. Widdows, Kingsbury Farm
Rotherfield. Sussex.

Orders now being booked for Sitting
from my prize-winning Utility White Leg
horns and White Wyandottes; 15 eggs; n
replacements; 10s., carriage paid. — Hil
Brentwood, Marple.

White Leghorn Hatching Eggs, fro
selected Utility Stock; 7s. 0d., 15; 42s., 10
—Blake, "Bozanti," Westbury, Wilts.

1,000ft. Altitude—yet Utility Cup an
Gold Medal Winners (Registered Pen
and records well over 200 for all breeders
White Leghorn, Black Leghorn, R.I. Red
and Anconas. Built up from the mos
consistent laying competitors' blood pr
curable. Lists free.—Fentem, Chapel-en-le
Frith.

LIGHT SUSSEX. BLACK LEGHORNS.

My pens contain only L2 hens, wit
trap-nested pullet year records over 25
2oz. eggs; mated to exceptional cockerel
from L2 parents; strain, Bostock Smith
price, 10s. 6d. per sitting.—Full pedigree o
application to Buckingham Booth, Chaun
ticlere, Bournemouth.

LARGE BROWN EGGS.

Try my R.I.R.'s mated Baldwin Cock
erels, also White Wyandottes and Whit
Leghorns; good laying strains; 7s. 6d
dozen, carriage paid.—Flower, M.S.P.B.A.
Brockhills, Hordle, Hants.

WHITE WYANDOTTE EGGS.

From hens with records 175-249 and thei
daughters, mated to males from 288, 257
249-egg hens. 7s 6d. for fifteen; no re
placements. All eggs 2ozs or over.—Jones
Kirkland House, Blacon, Chester.

WHITE LEGHORN EGGS FOR HATCHING.

None under 2ozs. 85 per cent. fertility
guaranteed; Hanson, Bennet and Pike
strains; mated to cocks and cockerels
direct from the Misses Ransford, Pens VI.
to X. All breeding stock on virgin soil.
Inspection invited; 6s. a sitting, 35s. pe
100; carriage paid.—Apply, Instow Poul
try Farm, Langton Matravers, Dorset.

Mr. R. FLETCHER HEARNSHAW,
Having purchased Mr. R. Kidd's entire
stock of Celebrated Utility Rhode Island
Reds, can spare a limited number of egg
for incubation; 10s. 6d. dozen. Also Whit
Leghorns; Miss Ransford's direct; 10s. 6d.
dozen.—Foxhill, Burton Joyce, Nottingham.

GOLD MEDAL STRAIN.

White Leghorns, winners of National Laying Test Section 2, 1925. Booking Sittings of Eggs; 15s. dozen.—Bingley, Balsham Manor Farm, Cambridge.

EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH).

Registered at the G.P.O. as a Newspaper.
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Edited by TOM NEWMAN.
Price TWOPENCE.

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Six Months " " 6/4
Three Months " " 3/2

The "Eclipse" Poultry Houses

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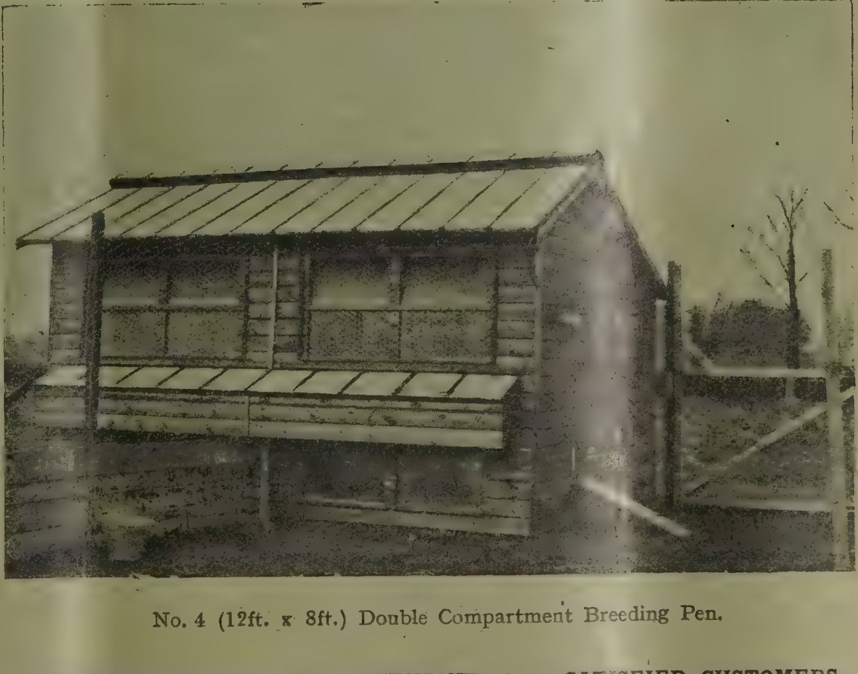

No. 4 (12ft. x 8ft.) Double Compartment Breeding Pen.

OUR CUSTOMERS are most HAPPY TO RECOMMEND

HENCE THE INCREASING DEMAND.

There is no BETTER RECOMMENDATION that the TESTIMONY of our SATISFIED CUSTOMERS. The "ECLIPSE" Houses MERIT THIS. HAVE YOU SEEN ONE? If not write to:—

HERBERT W. MARTIN, PERIVALE POULTRY FARM & APPLIANCE WORKS,
EAST HARLING, ——— NORFOLK.

PRIEST and SHAW

UNDER ROYAL PATRONAGE + ALWAYS WINTER EGGS +

I.O.W.

Pedigree Wyandottes **Pedigree Leghorns**

For Egg Production.

Sittings - - Chicks.

ORDERS SHOULD NOW BE BOOKED READY FOR DESPATCH AT YOUR CONVENIENCE.

CATALOGUE FREE.

SANDOWN, - - I.O.W.

Real Winter Laying WHITE LEGHORNS

OUR WHITE LEGHORNS HAVE HELD 1st POSITION AT THE NATIONAL TEST from the start, and at end of 3rd month tie with the leading pen of White Wyandottes for

HIGHEST AVERAGE OUTPUT IN THE WHOLE TEST,

57 eggs per bird in 3 winter months. No other Pen of White Leghorns in the first ten.

Also 2nd AT THE WORCESTERSHIRE TEST, with an average for the 3 winter months of 43 eggs per bird,

and 9th AT HARPER-ADAMS, with an average of 45 eggs per bird, and all 1st Grade.

SILVER MEDAL, WORCESTERSHIRE TEST, 1924/25,

and many Awards in principal Laying Tests since 1904.

EGGS FROM No. 1 PENS—10/6 per dozen.
EGGS FROM No. 2 PENS— 7/6 per dozen.

CHICKS DOUBLE THE PRICE OF EGGS.

EGGS from Pen headed by sire of pullets leading the National Test, 30/- per dozen.

A FEW GOOD COCKERELS, brothers to the National Test Pen, 42/- each, on approval and carriage paid.

LISTS FREE.

The Worcestershire Poultry Farm (E.),
(Estab. 1890),
TARDEBIGGE, BROMSGROVE.

"JUST ABOUT PERFECT" is the verdict of an old customer on EXTENSIBLE UNIT BUILDINGS.

The following letter from one of our clients speaks for itself:—

(COPY) JAMES C. PRICE, M.S.P.B.A. & N.U.P.S.,
Hill Place, Blackboys, Sussex. Jan. 7th, 1926.

"Dear Mr. COLT,—Yours of 4th inst. to hand with details of new LX model and estimate for 60 feet houses.

"I have now given your brooders and laying houses a thorough test so that this testimonial is not just the cock-crowing of an amateur pleased with a new toy, but it is based on a study of results, both as regards rearing and egg production, for the last three years.

"The design of all your houses is just about perfect, and one can expect to rear, barring accidents, every healthy chick put in your brooders. As to your laying houses, a flock of 200 1925 White Wyandotte pullets in one of your houses have been laying well over 50 per cent. all winter in spite of the fact that owing to deep mud they have had to be kept indoors.

"I put this down to the construction of your houses, which allow full light and ventilation.

"For the last three years practically all my birds have been brooded, reared and trapped in your All-Purpose houses, and the results have proved all you claim for them.

"Two of my birds picked from a flock of pullets reared in your brooder houses have done well at the NATIONAL LAYING TEST:—

No. 1298, "Slothful Sam," laid 203 eggs in 48 weeks (196 grade I.).

No. 1307, "Mercenary Mary," laid 220 eggs in 48 weeks (215 grade I.).

"Your latest model LX appears to be even better if that be possible—so I shall look forward to a 75 per cent. egg yield next winter."

Yours truly, JAMES C. PRICE.

One of three Houses, 60ft. by 15ft., Type L, on Capt. T. R. Clutterbuck's Farm, Micklefield P. F., near Rickmansworth, Herts.

ALL-PURPOSE MODELS are made in various depths. State your requirements and we shall be glad to quote. All-Purpose Models (Patd. & Regd.) will henceforth be made up in 1in. T. & G. board throughout as a standard; ⅝in. T. & G. to order only. All-Purpose Models ensure maintenance of suitable brooder temperature under hovers and in brooder compartment, for reasons which we shall be glad to explain to applicants.

PLEASE MENTION "EGGS."

W. H. COLT, Ltd.,

BUSH HOUSE, ALDWYCH, W.C. and
BETHERSDEN, near ASHFORD, KENT,

Telephone Nos.: CITY 5112 and BETHERSDEN 6.

EGGS
THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association
WEDNESDAY, MARCH 3rd, 1926.

Editorial.

THE INTENSIVE SYSTEM AGAIN.

So much interest has been aroused over the recent articles on the Intensive System of Poultry-keeping that we venture to return once again to the subject in order to answer some of our critics.

A few readers have written emphatically condemning what they describe as "an attempt to revive a system of poultry-keeping which can only result in the degeneration of poultry stocks." Others have announced themselves sceptical as to the possibility of success; but the vast majority of our correspondents evince very considerable interest in the system, and express the hope that it will be further investigated and explored.

One of the first letters which we opened was from our old friend Mr. Toovey, who does not hesitate to say that he has no belief in the possibilities of Intensive Poultry-keeping. He has tried it on three occasions without success. He asserts that the labour costs will be too high. He is extremely doubtful as to the possibility of our being able to produce eggs with good-coloured yolks.

Of his failure we can make no comment. We can only state that there are others who have succeeded, and why Mr. Toovey failed when they succeeded, we are not in a position to say. If he were to describe the methods which he used when testing the Intensive System, we might possibly be able to express an opinion.

On the question of the colour of the yolk we can reassure him, intensively-kept birds will produce eggs with a yolk of equally as good colour as that of any fowl on any other system, whether semi-intensive or on free range. The colour of the yolk is easily regulated by the feeding—that is a very simple matter, requiring no particular knowledge nor effort.

Mr. Toovey is, at the present moment, we believe, very keen on a certain mineral salt mixture which he believes to be necessary to the health of his stock kept upon the **semi-intensive** system. Evidently he is prepared to admit that even with birds kept upon this system he has not yet been able to devise a method of feeding which will keep them in health and production without the addition of mineral salts artificially supplied.

With regard to the feeding of intensively-kept poultry, the mineral salts are probably the keynote to success, and we do not anticipate there will be any great difficulty in this respect. What we have to realise is the possibility of any deficiency in the ration, and our knowledge of feeding, although at present nothing to boast about, is certainly far greater than it was when the intensive system was first introduced into this country some fifteen years ago.

We do not expect immediate success, but would again draw our readers' attention to the great success which attended the Wellingham experiments last year—to the health, vigour, and production of the pullets which were reared intensively from the shell.

Mr. Toovey refers to the labour question. We say frankly that we do not believe that the labour question will be any greater, if so great, as on farms where the birds are kept on the semi-intensive system, and we feel that at present he has not made himself very clear on this point as to why it should require more labour to manage birds on the intensive system than those which are kept semi-intensively. However, for one thing we can vouch, the problem of litter would not be more difficult. That is a problem which we believe has now been overcome with improved ventilation of the poultry houses, and the recognition that four square feet is the minimum amount of floor space which should be allotted to each bird.

In previous articles, we have stated, we believe that the primary cause of failure was the housing system adopted at the time the system was introduced. Perhaps Mr. Toovey could enlighten us in respect as to the house which he himself used, and we may be permitted to say that in our view they were probably wholly unsuited for the purpose.

It would materially assist us if those of our correspondents who condemn the system, or express themselves sceptical as to the possibilities of success, would state definitely their ground for the attitude they have taken up.

We would ask them not to refer to the failure of years ago, because that is admitted; and will they also be good enough not to emphasise again the fact that such a system is artificial, because we are well aware that it is so, but this applies to every phase of modern poultry-keeping.

The breeding tests at the S.P.B.A. Experimental Farm this year will be very severe, as the breeding pens are each confined to sections of the house which are only 10 ft. x 10 ft. The object in this is to make the test as severe as possible. Undoubtedly better results would accrue if the birds were allowed a larger space, but whatever the result, the test will prove both interesting and instructive. We are not anticipating failure, but even should the test prove unsuccessful, we must remember that this is but an experiment, and we must still endeavour to discover the cause of failure.

One object which we have in view in pressing for further investigation of the intensive system is to assist those thousands of poultry-keepers who are attempting at the present time to earn a livelihood from three or four acres of land. The profit per bird is so small, that in the great majority of cases there is little possibility of making anything but a bare living, as the number of birds they are able to keep under what we describe as semi-intensive conditions does not permit it. The rearing of chicks on the semi-intensive system with such a season as we are now experiencing would not appear to offer any advantages over the intensive system, neither can we see what is gained by laying pullets or breeding stock. Perhaps those who are persuaded that the mere mention of the word "intensive" is a step to destruction would explain where the advantage comes in. If we are not able to adopt the intensive system in its entirety, we may certainly pursue our investigations until we are able to see to what extent it may be adopted to benefit the poultry farmer. If we can so far improve it, that the man who is now keeping one hundred hens, can keep three times that number, then we shall be doing a great deal to keep out the foreign egg.

THE "SERIAL" LAYING TEST,

Held at the Bredryte Poultry Farm, Winthorpe, Skegness.

FOURTH SESSION, 1925—1926.

Results for the Third Lunar Month ending January 6th, 1926.

Total Egg Production.—The total egg output for the 28 days was 4887 (an increase of 590 eggs over last month), giving an average of 12.53 eggs per bird for the total pullets entered.

Broodiness.—Only one bird has shown signs of broodiness, W. Wyandotte No. 165.

Weather Chart.—Very severe weather continued throughout the whole of this period.

Hospital.—Two deaths have occurred during the month, making a total up-to-date of five only. The health of the remainder being excellent.

Exhibition (Standard Bred) A.V.—E. Thomas (W. La Br.), 206 eggs; Mrs. W. W. W. Butt (Bf. Rk.), 126; S. Outhwaite (Ex. L.), 124; Major G. Mundy (L.S.), 118.

White Wyandotte Section (Six Pullets).—R. A. and A. M. Johnson, 346 eggs; Mrs. E. Lilley, 275; R. P. Virtue, 272; Mrs. Crookes, 259; J. R. Cheeseman, 273; H. Lee, 241.

Rhode I. Red Section (Six Pullets).—Mrs. E. Gossage, 239 eggs; J. W. Potts, 209; Mrs. D. E. Greenslade, 203; Mrs. E. Lilley, 187; N. S. Robinson, 157; Fort and Fortune, 155.

White Leghorn Section (Six Pullets).—Capt. F. C. Collins, 268 eggs; W. Mason, 252; R. A. and A. M. Johnson, 247; F. C. Tomlinson, 239; J. Mason, 217; F. and T. Lumb, 190.

Black Leghorn Section (Six Pullets).—Capt. M. Zambra, 209 eggs; F. C. Tomlinson, 207; N. C. Robinson, 118; W. Beattie, 89.

Any Other Variety (Six Pullets).—F. C. Tomlinson (L.S.), 299 eggs; T. Leyson (Bf. Rks.), 216; Capt. N. Zambra (Aus.), 198; S. H. Brooks (An.), 187.

(Continued at Foot of Next Column.)

Modern Poultry Feeding.

By **TOM NEWMAN.**

I have received a letter from a correspondent, and the answers to same may be of interest. His first question is :—

> "How long did you continue to supply Cod Liver Oil to the chicks reared intensively at Wellingham?"

The answer to this is :—Eight weeks.

> (2) "Would it not be advisable to always add 2 per cent. Cod Liver Oil to the mash to all intensively-reared chicks?"

The answer to this would be :—Yes, until we have found something which will be less laborious and equally effective.

> (3) "I have seen, I believe in print, that you rub the oil into the bran which forms part of the mash. Is this a fact?"

Yes, this is the most convenient way of feeding the oil. Rub it into a little of the bran and incorporate the whole in the remainder of the ingredients.

His fourth question is :—

> "Would a little more than 2 per cent. oil affect the health of the chicks?"

Yes, my correspondent must consider the question of palatability, and Cod Liver Oil is not very palatable. Further, the slightest excess will, of course, cause digestive trouble.

> (5) "Will overfeeding the chicks bring on leg weakness?"

Yes, overfeeding the chicks will bring on leg weakness, but not the leg weakness which we associate with a ricketty condition.

What follows I am publishing for the benefit of many readers who confuse any weakness which may be exhibited by a staggering gait, or inability to stand, which is due to the debilitated or weakly condition of the chick, with the true leg weakness which has been such a problem for the poultry-keeper these many years :—

> "I purchased three dozen day-old pullets from a fellow-member, hatched 29th January; they have been fed up to the present on your

---

Small Breeders' Section (Single Bird). Any Variety Heavy Breed.—Mrs. W. Thompson (Bf. Rk.), 72 eggs; Mr. T. J. McMillon (R.I.R.), 72; W. H. Brown and Son (W.W.), 62; Mrs. E. Parker (Bf. Rk.), 54; W. J. Ellory (W.W.), 56; W. Burgin (R.I.R.), 55.

Small Breeders' Section (Single Bird). Any Variety Light Breed.—C. Gresley (W.L.), 54 eggs; C. Cummings (W.L.), 54; J. Hart (W.L.), 50; A. Ogden (B.L.), 45; J. Bordman (B.L.), 45; W. H. Dunkley (B.L.), 37

The best pen scores for the 28 days (six birds) are:—Hon. Mrs. D. Coventry (W.W.), 121 eggs; F. C. Tomlinson (L.S.), 120; Mrs. E. Gossage (R.I.R.), 118; Mrs. E. Lilley (W.W.), 117; R. A. and A. M. Johnson (W.W.), 115.

The best individual bird scores for the 28 days are:—Light Sussex, No. 17 (F. C. Tomlinson), 27 eggs; R.I.R. No. 202 (Mr. and Mrs. T. J. McMillan), 26 eggs; Light Sussex No. 16 (F. C. Tomlinson), R.I. Red No. 54 (Mrs. Gossage); W. Wyandotte No, 77 (G. H. Pennell); W. Wyandotte No. 102 (J. R. Cheesman), with 25 eggs each; followed by nine birds with 24 eggs each; eight birds with 23 eggs each; and 69 others with either 20, 21, or 22.

Wellingham formula, with the exception of the linseed meal. I have supplied the chicks with fine oyster shell.

I placed the chicks under a Pioneer hover, the hover being placed in a box arrangement, size 3 by 5 ft. raised 2 ft. from floor. I bored ⅜-in. holes in floor under hover, covered that portion with hessian and little damp sand, the idea being a ventilated floor; the litter is sand. The box arrangement is housed in a large light and airy shed, size 20 by 16 ft. by 10 ft. to ridge. Unfortunately—I ought to have known better—I ran the hover at too low a temperature for two or three days, thinking I should get stronger chicks, but I ought to have been guided by the noise the chicks made. Before I had remedied the matter I had only 25 left. The remaining chicks appeared, however, to be strong and active until 13th February, when I noticed in the afternoon some were suffering from diarrhoea, slight leg weakness, not keen for their feed. On looking round I noticed there was as much scratch feed—composed of kibbled wheat, pinhead oatmeal, kibbled maize—as would keep them a week. I immediately extended the box arrangement, filled it with sods and soil, took away the scratch feed lying about, also the mash and placed a supply of sour separated milk, supply of bran only and fine oyster shell, in a position that the chicks would have to cross the sods and soil to feed. B evening of the following day the diarrhoea appeared to have stopped, the majority of the chicks were more active; so I gave a little scratch feed and returned the Wellingham mash, made a little more bulky, and gave instructions that only a sufficient amount of scratch feed as the chicks would clear in a few minutes was to be given twice a day, with the exception of the evening feed, when they were to be given as much as they would eat. A number of the chicks are still not to my liking, they are not keen enough for their food, are unsteady on their legs. I am, however, hopeful the oil which I will give them to-morrow will bring them round.

I have one chick whose crop is full of food and down with drooping wings and leg weakness. I have taken this one away, and am starving it to see if I can get rid of the food.

I have tried several times this last three years to rear a few chicks, but exactly under the conditions I have outlined here, and I have met with about as much success as your correspondent whose letter you have published in 'Eggs' of February 10th, under heading 'Editorial.'

I am of opinion I was the cause of the number of chicks dying, through being chilled, and later of overfeeding the remainder."

This condition which my correspondent describes is due in the first place to a chill, and the losses incurred were entirely due to the same cause. His chicks were dying from pneumonia, and the leg weakness was but symptomatic. Just as a man, sick from influenza, would be weak on his legs, so were these chicks. When he recognised his mistake his best treatment would have been to have given 40 grains of citrate of iron and quinine to the gallon of drinking water, and allowed the chicks nothing else to drink. He might also, in addition, have given cod liver oil.

Diarrhoea is a common symptom of chill. The chicks were not eating, simply because they had a high temperature.

I do not think he will, however, do much good with the chicks.

With regard to the one whose crop was full of food with downward drooping wing, and leg weakness, which he has taken away and is starving to see if he can get rid of the food; this is useless. It is a case of arrested digestion. This is common with all chicks which are diseased. I have no doubt that my correspondent's troubles are really brooder troubles, and not associated with feeding in any way.

WEST SURREY POULTRY SOCIETY, LTD.

Report of Winter Laying Test, 1925-6.

The total eggs laid during the sixteen weeks was 5,446 (first period 1,222, second 1335, third 1,226, fourth 1,633); the daily totals varying between 38 and 78. The breed averages were.—Light Sussex, 44.25; White Wyandotte, 43.75; Black Leghorn, 32.19; Rhode Island Red, 30.79; White Leghorn, 29.28.

The weather has been very variable, being almost of summer heat for a few days at the commencement, with many wet days and several snowstorms later; deep snow keeping the birds in the house for nearly a week during the fourth month, and considerably affecting the output.

A large number of birds were very immature on their arrival, and were a long time starting laying. On the other hand there were some in lay at the start, and which dropped into a moult later. One noticeable feature was the short time occupied by most of these moults. Three pullets contributed nothing to the egg basket throughout the test, while 21 others laid under 20 eggs apiece. Only two birds were broody, one Sussex having two attacks.

Perhaps the most outstanding feature of the test was the small size of the eggs laid by the majority of the pullets; no fewer than 15 of the 32 pens having produced more than the maximum of sixty second grade eggs permitted for scoring purposes.

Light Sussex obtained the highest average number of eggs.

LIST OF AWARDS.

Heavy Breeds. Section A.—Best Pen of Heavy Breeds (Pen 7, W.W.), Capt. Britts; Second Pen of Heavy Breeds (Pen 1, W W.), Capt. Britts; Best Pen, Class 1 (Pen 7, W.W.), Capt. Britts; Best Pen, Class 2 (Pen 12, R.I.R.), H. W. Homewood; Best Pen, Class 3 (Pen 17, L.S.), Sir J. Leigh; Best Heavy Breed Pullet (No. 64, L.S.), Sir J. Leigh

Light Breeds. Section B.—Best Pen of Light Breeds (Pen 22, W.L.), W. Ezzard; Second Pen of Light Breeds (Pen 23, W.L.), Mrs. Harding; Best Pen, Class 5 (Pen 22, W.L.), W. Ezzard; Best Pen, Class 6 (Pen 31, B.L.), H. G. Hood and Sons; Best Light Breed Pullet (No. 121, B L.), H. G. Hood and Sons.

Monthly Specials (for highest number of first grade eggs).—First Month (No. 78, W.W.), Capt. Britts; Second Month (No. 64, L.S.), Sir J. Leigh; Third Month (No. 72, L.S.), G. R. Reakes; Fourth Month (No. 78, W.W.), Capt. Britts.

FINAL REPORT.

Figures are Eggs and Points respectively.

White Wyandotte.—Capt. M. H. G. Britts (b), 248, 192; Capt. M. H. G. Britts (a), 186, 186; H. Rowntree (b), 157, 157; Burrows Lea P. Farm, 200, 145; A. Stewart Buckle, 134, 133; H. Rowntree (a), 151, 128.

Rhode Island Red.—H. W. Homewood, 202, 136; J. B. Bantoft, 132, 127; N. Surrey P. Farm, 102, 101; W. Ezzard, 174, 93; A. C. Wilson, 98, 91; Mrs. C. R. Harding, 93, 88.

(Continued at Foot of Column on Next Page).

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

NEW-LAID EGGS AND PACKING.

The Medical Officer of Health for Bermondsey, commenting recently on the susceptibility of eggs to infection, is reported to have stated : "We have frequently found that mould arising from dirty or unsuitable packing, has penetrated the eggs. . . . Our own packers are by no means free from blame, but Irish Exporters are great sinners in this respect. Many of the ducks' eggs coming from Ireland are a disgrace, and show evidence of great lack of care both by producers and packers. They are very dirty and are often surrounded by dirty packing."

In connection with this statement, the Ministry of Agriculture for Northern Ireland states that the export trade in eggs to Great Britain is regulated under an Act passed in 1924. Merchants' premises which are under constant supervision must be well lighted, ventilated, and kept in a clean and sanitary condition, and free from objectionable odours. Packing material must be clean dry straw, woodwool or cardboard fillers. Dirty eggs may not be included in any case, nor may eggs be washed. Whatever justification may have existed for such a statement prior to the passing of the recent Act, eggs from Northern Ireland are not now inferior in cleanliness and wholesomeness to any eggs sold in the British Market.

LIGHT SUSSEX AND THE INTENSIVE SYSTEM.

My readers will think I have become a "crank" on the Intensive System. The letter which I give below, however, is inserted, not because I wish to strengthen my position as regards the system, but purely as a matter of interest.

We have for long believed that nothing but the light breeds can be successful when kept intensively, but these records from a pen of Light Sussex are of remarkable interest. Personally, it would be one of the last breeds I should recommend for this purpose.

I will not comment further on it, as some of my readers will accuse me of prejudice, and so I will leave it for them to study the figures and the letter which I have received :—

"Dear Mr. Newman,—I have to thank you for your letter of the 5th inst., and what you tell me is quite encouraging. You are correct in thinking that this pen of Light Sussex pullets is kept wholly intensively. The ten birds are kept in a house 8 ft. by 7 ft., were placed there on the 1st September, 1925, and will remain there certainly until the month of August next.

As you ask for further information about this pen and their actual winter records, I have waited until after the 15th inst. I have now had the enclosed table prepared which I think gives you all the information required.

You will notice that nine out of the ten birds have far exceeded the L2 test, one bird only ("green") being four eggs under, but this bird got a setback at the end of October. She caught cold or something, and laid no eggs at all for a fortnight or three weeks.

'White's' record is quite extraordinary, passing the L2 test by laying 90 eggs in 91 days. She has only missed three days since the 7th September, and to-day has laid her 135th egg in 138 days, and, as you see, weighs 5½ lbs., and looks as though she were prepared to go on indefinitely.

I am quite pleased with the results of the others, notwithstanding that five of them had short periods of broodiness (denoted by an asterisk). All these birds were hatched out on March 2nd and 5th of last year."

PEN No. 3, LIGHT SUSSEX (Hatched March 2nd and 5th).

Colour.	Commenced Laying.	Sept.	Oct.	Nov.	Dec.	Jan. 15th.	Winter Test, Oct. 15th to Jan. 15th.	Total laid up to Jan. 15th.
Black	Sept. 7th	21	20	22	24	11	65	98
White	Sept. 7th	24	31	29	30	14	90	128
Blue	Sept. 7th	14	18*	18	17*	13	61	80
Yellow	Sept. 9th	21	19*	27	13*	8	64	88
Pink	Sept. 11th	20	15*	25	20	10	65	90
Brown	Sept. 11th	20	27	26	15*	5	60	93
Green	Sept. 11th	19	16*	13	18*	7	46	73
Light Blue	Sept. 13th	16	18*	26	22	9	68	91
Black & Red	Sept. 13th	17	25	19	19	10	62	90
Black & White	Oct. 2nd	0	19	23	21	4	58	67

* Denotes birds were broody for short periods.

Winter test, reckoned October 15th to January 15th—90 days.

"White" was not weighed at commencement of test but at conclusion weighed 5½ lbs.

L2 factor—50 eggs on 90 consecutive days between October 15th and January 15th.

Light Sussex.—Sir J. Leigh, 195, 162; G. R. Reakes, 179, 156; Burrows Lea P. Farm, 246, 144; P. H. Ponking, 88, 88.

A.O.V. (Heavy).—Class cancelled.

White Leghorn.—W. Ezzard, 215, 215; Mrs. C. R. Harding, 185, 182; H. G Hood and Sons, 187, 116; Burrows Lea P. Farm, 190, 100; Sir J. Leigh, 163, 97; A C. Wilson, 122, 93.

Black Leghorn.—H G. Hood and Sons (b), 171, 168; H. G. Hood and Sons (a), 143, 142; H. Rowntree, 163, 103; Capt. M. H. G. Britts, 104, 120.

Each pen consists of four pullets.

FOOD PURCHASE SCHEME.

Referring to the odd cwts. which are now to be supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown.

This is to cover the extra expenses and handling, which the one cwt. business involves.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

Fish Meal (Pure White) ...	19/6	F.O.R. LONDON.
" " " ...	19/6	F.O.R. BRISTOL
" " " ...	17/9	F.O.R. SWANSEA.
" " " ...	17/9	F.O.R. TYNEMOUTH
" " " ...	17/9	F.O.R. GRIMSBY.
" " " ...	18/3	F.O.R. BRADFORD.

PRICES OF MASHES.

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	11/0	11/0	11/3	11/9
F.O.R. LIVERPOOL	12/0	12/3	13/6	13/6
F.O.R. LONDON	11/9	11/9	12/9	13/0
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN ...	11/3	11/3	11/9	13/0
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/6	11/6	12/3	13/0
F.O.R. SOUTHAMPTON .	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH ...	12/3	12/6	12/3	14/0
F.O.R. ABERDEEN	12/9	11/9	13/9	13/9
F.O.R. HARROGATE ...	12/9	12/6	13/6	13/6
F.O.R. GLASGOW	12/3	12/3	12/3	13/3
F.O.R. STAFFS	11/0	11/0	12/6	12/3
FO.R. SUSSEX (East) ...	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/3	10/9	11/6	11/3
F.O.R. SUSSEX	11/6	11/6	12/6	12/6
F.O.R. BRADFORD	12/6	12/3	13/3	13/3
F.O.R. BIRMINGHAM ...	11/6	11/6	12/3	12/6
F.O.R. GREENOCK	11/6	12/0	12/9	13/3

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	16/9	14/9
F.O.R. LIVERPOOL	18/3	15/3
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEICESTER	16/9	14/9
F.O.R. KING'S LYNN	17/6	15/6
F.O.R. BELFAST	18/3	16/9
F.O.R. BRISTOL	17/6	15/0
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	15/0	13/9
F.O.R. HARROGATE	17/9	—
F.O.R. GLASGOW	17/3	15/3
F.O.R. STAFFS	17/0	14/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	16/9	14/9
F.O.R. SUSSEX	18/0	14/9
F.O.R. BRADFORD	17/6	15/9
F.O.R. BIRMINGHAM	18/0	16/0
F.O.R. GREENOCK	18/3	15/0

		Per Cwt.
MAIZE GRITS	F.O.R. LONDON ...	10/9
MAIZE GRITS	F.O.R. IPSWICH ...	10/9
S. G. OATS	F.O.R. LONDON ...	13/3
S. G. OATS	F.O.R. SUSSEX	12/6
S. G. OATS	F.O.R. BRISTOL	13/0
MEAT AND BONE MEAL ...	F.O.R. LONDON	13/9
MEAT MEAL	F.O.R. LONDON	14/3
MAIZE GERM MEAL	F.O.R. LONDON	9/0
MAIZE GERM MEAL	F.O.R. IPSWICH	9/0
MEAT AND BONE MEAL...	Carriage Paid	15/3
MEAT MEAL	Carriage Paid	15/9
ALFALFA	F.O.R. LONDON	13/3

We have now been able to procure a consignment of English Alfalfa Meal, and can offer this at 11/6 per cwt., F.O.R., from a town in the Midlands.

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

The following can be supplied in one cwt. lots, Carriage Paid, to all members in :—

Sussex, Surrey, Hampshire and Kent :—

LAYERS' MASH	13/6 per cwt.
BREEDERS' MASH	14/0 " "
GROWERS' MASH	13/3 " "
CHICK MASH	15/6 " "
S. G. OATS	15/0 " "
CHICK FEED No. 1	19/6 " "
CHICK FEED No. 2	17/6 " "

Herts, Essex, Suffolk, Norfolk, Bucks, Middlesex, Cambs.:—

LAYERS' MASH	14/3 per cwt.
BREEDERS' MASH	14/9 " "
GROWERS' MASH	14/0 " "
CHICK MASH	17/0 " "
CHICK FEED No. 1	20/3 " "
CHICK FEED No. 2	18/3 " "

These cannot at present be supplied to counties other than those mentioned above.

REPORT OF MEETING HELD AT KIDDERMINSTER ON THURSDAY, FEBRUARY 18th, FOR THE FORMATION OF A "WORCESTERSHIRE FEDERATION OF POULTRY-KEEPERS."

A meeting was held on Thursday, February 18th, at the Bay Horse Hotel, Kidderminster, to consider the formation of a "Worcestershire Federation of Poultry Keepers." After some discussion it was decided to form such a Federation, and the following were elected officers of the Federation:—Mr. F. R. Welch, Chairman; Mr. J. Hill, Vice-Chairman; and Mr. W. P. Drew, Secretary.

AIMS AND OBJECTS.

To deal with all poultry matters relating to the county as a whole.

Educational (Lectures, etc.).

To deal with any legal matters brought forward by members.

To arbitrate in questions of disputes.

To organise or assist a County Show.

To obtain representation on the National Poultry Council, etc.

The affiliation fee is a minimum of 2s. 6d. per annum for direct members, and 3d. per member for societies. Societies are allowed to send one delegate to every 20 members to all meetings of the executive.

The next meeting of the Executive will be held at Kidderminster (Bay Horse Hotel) on Thursday, March 25th, at 7 p.m.

W. P. DREW, Secretary,
Oldswinford P.F., Stourbridge.

Correspondence.

To the Editor of "Eggs."

Dear Sir,—One frequently sees in your valuable journal arguments as to whether it is advisable for the commercial egg farmer to rear his own stock, or to purchase it from breeders, and the question does not yet appear to be by any means a settled one.

A great deal is made by some writers of the point that an egg farmer should not have plant, such as incubators and brooders, lying idle for the greater part of the year, but, seriously, can the breeder make use of much of that plant at any period of the year other than that when the egg farmer requires his chickens to be dealt with? If he can, I think it is only to a very limited extent—that by the way.

What I wish to urge is that if the breeder is to fill the place of supplier of stock to the egg farmer, it is essential that he should play the game fairly and "deliver the goods" in all respects up to specification. Talking this question over recently with a friend who has had some little experience, he propounded the theory that dealers in live-stock generally were out to "do" you. He said: "You know that in the case of the horse-dealer, it has become proverbial, and I am afraid that other classes of breeders are more or less tarred with the same brush." For the credit of the poultry fraternity let us hope that as the stock dealt with decreases in size, the above-mentioned characteristic also decreases.

A few years ago a young man, who had suffered from "doing his bit" and craved for, and indeed needed, the open-air life, started in a small way as an egg farmer. The first season he ordered a number of young pullets from a few different sources. The first consignment came along quite satisfactorily and matured all right, but only laid moderately. The next from a much-advertised farm, with a titled proprietor, who employed a manager, were rather a sorry lot, varied very much in size, although supposed to be of the same age, and it was a constant trouble trying to prevent the large ones from bullying the smaller ones, and preventing them from feeding. Even when means had been taken at considerable trouble (the necessity, of course, not having been anticipated) to separate the smaller ones from the others, they never did any good, suffered from various ailments, and were always more or less "duds." The local quidnuncs said, "Too much in-breeding." A third consignment from a farm only a few miles distant, brought by motor car and right away installed in fine roomy quarters, proved only very moderate layers. After this first season's experience the young man decided the next year to go in for day-olds. The first lot of heavy breeds in February arrived in cardboard boxes with large ventilation holes and little hay, so a 25 per cent. mortality was not to be wondered at. After protest, a consignment of Light Breeds in April from the same place (which we will call A.) came to hand better packed, and suffered only a few casualties. Meantime a consignment of 200 from a farm only a few miles away (call it B.) proved a disastrous lot—about 85 per cent. mortality. A protest in this case brought another 100 chicks, and to find out, if possible, where the fault lay fifty of them were put under hens. The mortality was much the same as with the others from B., that of the chicks under the hens being in fact rather higher than with the brooder. From the 300 chicks 22 pullets were obtained.

This year, of course, B. is out of the question, and the birds reared from the A. chicks, having on the whole proved satisfactory layers, an order for chicks was sent to A. I was present when the first of these arrived on a raw day with N.E. wind, and was astonished to find a repetition of last year's experience of the absence of protection from draught. Certainly there was some hay, but it was all at the bottom of the boxes. After protest the breeder says the hay was put round the boxes, but the chicks must have trampled it down, **"as is usual"**; rather a weak way of stating it. I think I know from my own experience that it is quite possible to arrange the hay so that it will not be trampled down.

The chicks were evidently chilled, cheeped complainingly, and were very restless. So far there is a mortality of about 6 per cent., but others look weakly and are not going to make good. Can you be surprised when the egg farmer says, "We must not have any repetition of these experiences. We must breed our own next year."

I have had other experiences which I will not weary you with, but it would seem that to guarantee "live delivery" of chicks is a perfectly safe thing, but though alive when received they may have been so treated that the deaths of a considerable proportion is a practical certainty.

Yours faithfully,

W. B.

THE STAMPING OF EGGS.

To the Editor of "Eggs."

Dear Sir,—Why should a retailer object to stamped **British** eggs?

The answer is simple. He cannot then mix them with unstamped foreign ones, and once a consumer tasted and found good a British-producer's eggs she would worry that retailer to get the same eggs again. Therefore, let every producer stamp his eggs and make sure of their freshness. The market is ours then.

I never send eggs in for sale more than two days old, and I see an eagerness to get my produce in the retailers they are sent to.

One man told me last week, "Customers like your eggs."

If possible, white eggs should be packed separately from brown. Keep out the smalls and the extra large. Send them uniform and clean, and, again I say, the market is ours.

Yours faithfully,

"PRODUCER."

MEAT PLUS EGGS.

To the Editor of "Eggs."

Dear Sir,—With further reference to my letter in "Eggs" of 3rd February, and Major Hayland Wilson's comment thereon in "Eggs" of 17th February, I think the figures given by me prove that although certain heavy breeds lay on the average fewer eggs than W. Leghorns, the money value of their eggs is greater—a very important item in the main issue as to whether the light or the heavy is the better commercial proposition.

For some year I have kept two heavy breeds and W. Leghorns, and I have satisfied myself that the heavies show a better profit, consequently I am increasing my heavies and reducing my stock of W. Leghorns.

So many factors enter into the argument, such as markets, environment, means of disposing of old hens and cockerels for the table or otherwise, that one cannot dogmatise, but must write from his actual experience. We all know that conditions suiting Leghorns may not be suitable to heavies. My farm stands high, and is very exposed to all winds, a factor against the Leghorns. I have only about nine inches of soil on chalk subsoil with natural southern slope, and the ground is consequently very dry and free from mud at all times, a point in favour of the Leghorns. Heavies and Leghorns are housed and fed exactly the same, making conditions equal. In an effort to get back to the starting point of this discussion I have compiled a further set of figures. I don't expect them to be accepted without criticism, but I have spent some time and thought on them in an attempt at accuracy, and to show as simply as possible my opinion, making due allowance for different floor space and size of flocks for the different breeds.

The question of strain does not enter largely into the discussion, as we all know it is now possible to obtain as good laying strains of certain breeds of heavies as of W. Leghorns. I have taken as my standard of production the Harper-Adams' Test of last year.

In one important respect only the W. Leghorn is to be favoured by farmers who do not trap—culling is simpler than with most heavies—at least, so it appears to me.

Yours truly,

R. McKENZIE.

IN RELATION TO W. LEGHORNS.

Per Annum.	W. 'Dottes.	R.I.R.	L.Sussex.
Average Value of Eggs (Harper-Adams' Laying Test, 1924-25)	+1	+21	+7
Food	—17	—3	—19
Labour	—23	—9	—28
Rent, etc.	—24¼	—10¼	—31
Old Hens	— 6¼	+13¾	—1
Cockerells	+18¾	+40¾	+31
Rearing	+ 8¾	+26¾	+15
Gain over W. Leghorns per bird per annum	8¾d.	2/2¾	1/3

INCUBATORS.

To the Editor of "Eggs."

Sir,—The tale I have to tell is distinctly non-scientific, so your blue-stocking readers had better get on to the next page (that is, if you insert this article) before I shock them.

I have a daughter—she, like me, is fond of poultry. In January, 1924, she said: "I am going to buy an incubator. I can get a second-hand Gloucester, 100-egg size, nearly new." She bought it. I carefully instructed her not to put eggs into it until it was running smoothly. She wrote me saying: "Incubator cannot quite make up its mind whether to be a gas oven or a refrigerator. We are now moving it from outbuildings into dining room." A few days later she wrote: "Temperature more regular, but far from normal, shall put in 100 eggs and chance it." Then she wrote: "The thermometer is having a most trying time; sometimes the mercury is up so far it cannot go any further, and sometimes right back out of sight. The only thing we can do is to sit by the incubator and regulate the lamp." I wrote back: "You seem to be having a happy time. You had better hire a night nurse!" The 23rd day she wrote me: "I have got 50 chicks out of my 100 eggs—all strong and well." I immediately forwarded my congratulations. A few days later she wrote me: "On cleaning the incubator after the hatch I find **I have had no capsule!!!** I am writing for one at once." My reply was couched in language which a fond father may use to a sporting daughter, or a sergeant-major may use to a new recruit. The reply I got was, "——————." Well, we will leave that out.

A few days later I got a letter saying, "Have loaded up with duck eggs. Capsule arrived all right from makers." Here all correspondence ended, but my daughter came to stay with me about a month afterwards. She got talking of chickens, etc., etc. I remarked, "What an ass you were over that capsule." She said: "I was rather, but the seller said it was all complete."

"How did you get on with those ducks' eggs?"
"Oh, only 25 out of 70 eggs."

"Temperature all right?" "No, rotten; simply can't steady it."

"Have you put the capsule in?" "Yes, I put it in just as it came from makers. It's a big square thing, **all tin.**"

I said: "What, did you put tin and all in?" She said, "Yes." I said, "Well I'm ——," and she said, "Quite."

I hold no brief for the Gloucester incubator, but if you can get 50 chicks out of 100 eggs, not using any capsule, the make must be as near fool-proof as any can possibly be.

W. B. WOOD (Lt.-Col.).

TESTIMONIALS.

The Abbey, Thorpe-le-Soken, Essex,
6th Feb., 1926.

Dear Mr. Newman,—Herein is cheque in settlement of account. Thank you very much for forwarding the mashes. I hardly know how to express my indebtedness to you for the benefits obtained by members of the S.P.B.A., and I cannot too strongly advise all poultry-keepers to join the Association. It has saved me many pounds already in the prices of foods, and your advice from time to time has proved invaluable.

Yours sincerely,
(Signed) HAROLD D. SIMMONDS.

Blofield Hall, Trimley St. Mary,
Suffolk.

Dear Mr. Newman,—I have been using the mash you prescribe in the Register for chicks, and find it most excellent. My chicks so far have progressed splendidly on it in spite of the absence of sun, and I am delighted with the feeding. This year I have given no milk (because of the expense), and I am sure they are doing better than last year when I gave all skimmed milk for the first two months.

They simply love your mash. Our best thanks are, I am sure, due to you for having given us such a cheap and very efficient food. I also think your Layers' Mash is a wonderful mixture at the price.

Sincerely yours,
(Signed) E. P. WRINCH.

Highfield Poultry Farm, Highfield,
Eastwood, Essex.
1st Feb., 1926.

Dear Sir,—I beg to acknowledge receipt of consignment of mash as ordered, and I should like to join in the general vote of thanks to the originators of the Food Purchase Scheme. Even when buying only a small quantity as half ton, and after paying for carriage and cartage, we are still nearly £2 a ton in pocket as compared with the cost of buying the ingredients locally, and mixing the mashes ourselves.

Yours faithfully,
pp. Highfield Poultry Farm,
(Signed) J. E. COURT.

Answers to Queries.

By the **EDITOR.**

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.

Bodies should be packed and sent by post immediately after death. marked for immediate delivery. The fee is 5s. for a reply by post The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

E. E. F. (Warwick) wants advice with regard to his March-hatched Wyandotte pullets, which commenced to lay in the middle of August, and continued to lay very well until they moulted in December. In early January they seemed to recover from the moult, but the recovery has been slow, and since about the 6th there has been a considerable decrease in egg production. They have had a dry mash, as per sample, which is supposed to be made up to my formula, with one full grain maize feed in the evening. My correspondent thinks there is little possibility of under-feeding as they are fairly fat, but not too fat. Some of them are still pale. Throughout the winter they have been fed at night, between six and seven p.m. with the grain feed, as this is the earliest he can give it. There has also been an epidemic of egg-eating, and he has attempted to cure this by placing some dark nests on the ground to stop them laying in the litter, instead of in the proper boxes. He suspects that this egg-eating has been going on since early January, but he has only found it out about a week ago. He mixes the mash himself.—The real trouble here is the quality of the ingredients in the mash. These are the poorest, and the mash has no body to it whatever; it cannot be made up to my formula. I would suggest to my correspondent that he immediately gets better quality foods, and mixes the mash as follows:—1lb. bran, 1lb. alfalfa meal, 4lbs. middlings, 1½lbs. Sussex ground oats, 1lb. maize meal, and 1lb. fish meal. It is one of the worst samples of mash I have ever had sent me, as far as the quality of the ingredients is concerned. As to the birds being still pale, this is simply because they are very far from laying. Directly they are better fed, and the ovary becomes active again, they will lose this paleness. With reference to the epidemic of egg-eating, I cannot help him much there. The only thing I can suggest is that he darkens the nest by nailing a piece of dark cloth across the front, slitting this up the middle in order that the birds can get in and out of the nest easily without seeing the eggs. In addition to this a good plan is to throw a few china eggs on the ground around the vicinity of the nest, and let the pullets peck at these.

"Worried" (Torphichen) asks me for advice re feeding his fowls. He is giving for grain three cwt. oats, 2¼ wheat, two broken maize. Would I give him a formula to include bran, thirds, maize meal, ground oats (if necessary), and meat and bone meal, and say whether the parts are by weight or measure? Here is a formulae for his purpose; he must be particular as to the quality of the ingredients, and the thirds should be thirds in reality, and not pollard or fine bran:—2lbs. bran, 4lbs. thirds, 1lb. maize meal, 1lb. Sussex ground oats, and one meat and bone meal. I would suggest that he secures a meat and and bone meal, with a fairly high protein content, and not one containing too much bone. With regard to his Gloucester incubator, the results from which have not been 50 per cent. Do I advise him to run at a higher degree of temperature? He has started at 103, rising to 104 towards the end of the hatch. The cellar is sunk, and would only average about 45 degrees.—Would spraying with Izal solution help to keep the atmosphere free from smells, as it is inclined to be musty? I think he would be wiser, under such conditions, to start the machine at 105, and drop to 104 the second week, and finish at 103. Spraying with Izal would certainly sweeten the atmosphere. The question is as to whether there has been an excess of moisture in the machine run under such conditions. It is difficult to advise unless one has seen the eggs. It is very possible that it would be better not to add any moisture to a machine run in a cellar like this.

H. P. H. (Bedford) writes for advice with regard to one of his White Wyandotte hens, which persists in laying soft eggs with cords about an inch long attached to the end (in any place other than the nest boxes). This bird is a splendid colour, larger than the average, handles well, and is one of the best of six which averaged 247 eggs each last year (58 W.R.), kept intensively and fed on my formula, including mineral mixture. They did not moult until mid-November, and have now finished and commenced laying again, but this bird seemed to only half moult (she has still plenty of her old feathers), and then colour up again and resumed laying these dud eggs. For the last ten days he has kept her isolated from the rest, and given a large dose of Epsom salts, cut out the mash, and fed wheat and oats in extra deep litter, given a dose of Parish's Chemical Food, and after all this she has laid another. My correspondent says the bird is now a trifle thin, but fitter than ever. He adds:—"In this week's 'Eggs' you make some remarks on trough feeding. I have given this a trial on some W. Wyandotte pullets which commenced laying at 4½ months, and have found it very successful. No neck moult, but nearly 70 per cent. production with a good increase in body size. In conclusion I should like to express my appreciation of your splendid journal, which I find indispensable."—I am afraid my correspondent can do nothing with this bird.—He might try feeding her principally on good oats, giving no mash at all, and particularly no animal food. He must check her in some way. It would perhaps help to keep her on three parts good oats, and one wheat, giving plenty of fresh green food, and a little broad bran. If five per cent. linseed meal were mixed with the bran it might help. More than this I am afraid he cannot do. I am much interested in what he tells me as to the feeding of the White Wyandotte pullets which commenced laying at 4½ months old.

J. H. (Sunningdale) has sent me an egg which unfortunately arrived in such a condition that I am unable to express an opinion upon it. From what my correspondent tells me the egg was delivered to a customer, and was guaranteed not to be more than two days old. The probability is that it has been retained too long in the oviduct. This is of common occurrence; such eggs are frequently sent to us. Another question is asked: Could a bird be frightened to death by rats? A Black Leghorn pullet was picked up dead, the left leg being drawn up to the body; outward appearance left the impression that the bird was perfectly healthy. I have never definitely proved that a bird has been frightened to death by rats, but it is quite possible that such would be the case, especially if it was suffering from heart trouble. I expect, had a post-mortem been made on the pullet, we should have found some other cause than death by fright.

W. R. W. (Longfield) wishes to buy the largest breed of cockerel for table purposes, and asks if I can inform him which is the largest breed or cross for this purpose, and where he could obtain them. I think for size for purely table birds he could not beat the Sussex, and as a cross the Game-Sussex, but where he could obtain these birds I am not in a position to say. Such a cross as he desires is not found very frequently, and I fear there is nothing for him to do but to advertise for it. My correspondent also asks me what breed is the Lincoln fowl. That is, as far as I can understand his writing. Presumably he is referring to the old Lincolnshire Buff, which was used in the manufacture of the Buff Orpington. This was a distinct variety of fowls which originated from Lincolnshire. I have not seen any exhibited for many years.

H. T. (Croydon) sends three samples of meat and bone meal. One at 18s. 6d. per cwt., which is a fairly good sample, but dear at the money. Another (No. 1) at 21s. per cwt., which is certainly not worth more than 15s., while No. L2 is a moderately good sample at a very high price—23s. The price of all three is in excess of value—the best would be No. 3, at 18s. 6d. per cwt.

"Enquirer" (London) refers to a formula which I gave in a recent issue of "Eggs," and he wishes to use a good sample of alfalfa meal. The best thing to do would be to replace half the bran with alfalfa meal. It could be used in a wet mash. His grain mixture is quite correct. There would be no reason for leaving out the oats if they are of a good sample. A mash for chicks a month old would be as follows:—2lbs. middlings, ½lb. biscuit meal, ½lb. Sussex ground oats, ¼lb. meat meal. These ingredients should be scalded together, and the whole dried off to a crumbly consistency with bran.

"Fad" (Allerton) sends a fairly good sample of thirds at 10s. 6d., which are a little high in price. Sussex ground oats at 16s. are a moderately good sample. The fish meal at 32s. per cwt. is surely a mistake.—My correspondent should get it at 25s. at the outside. Maize meal at 12s. 6d. is only a moderate sample. Broad bran at 12s. is very good. The wheat is also a reasonably good sample. A suitable dry mash for layers for the conditions he describes would be:—1lb. bran, 1lb. alfalfa meal, 4lbs. middlings, 1½lbs. maize meal, ½lb. Sussex ground oats, and 1lb. fish meal. For the grain mixture I would prefer to give two parts wheat and two parts kibbled maize. When the grass is a little better I would replace the alfalfa meal in the mash with an equal part bran.

"Eggs" (Scarborough) would like advice about the feeding of chickens. He has no grass, but has a garden to keep them in. He wants to know how to feed from the time they are day-olds to the time they are put on the laying mash. He should give no food until the chicks are 48 hours old. For the first week he should give them skimmed milk to drink, and have a hopper of dry bran and Quaker or Provost oats always before them, giving at the same time the following little scratch feed:—6lbs. finely kibbled wheat, 5lbs. fine maize grits, 4lbs. split groats, 1lb. canary seed. This should only be a scratch feed just to keep them occupied until the last feed at night, when they should be given a full feed of grain. After six days they should be put on the following mash, which should be always before them:—21lbs. bran, 10lbs. alfalfa meal, 35lbs. middlings, 21lbs. Sussex ground oats, 14lbs maize meal, and 5lbs. fish meal. The bran and Quaker Oats would, of course, be removed at this stage. If possible the skimmed milk should be continued, and in that event the fish meal could be omitted from the mash. When the chicks are eight weeks old they could be put upon the following mash until they are five months:—3lbs. bran, 4lbs. middlings, 1½lbs. maize meal, 1½lbs. Sussex ground oats, ½lb. meat and bone meal. When they are five months old the following layers' mash should be given:—1lb. bran, 8lbs. middlings, 1lb. clover meal, 2lbs. maize meal, 2lbs. Sussex ground oats, 2lbs. fish meal. In reply to my correspondent's question as to whether he could trap-nest his birds. This seems to me impossible, as he could only go to them at 7, 11.30 and 4; the birds would be on the nests far too long.

POST-MORTEMS.

Capt. E. C. H. The post-mortem examination of the chicks showed them to be affected with pneumo-mycosis, or the pneumonia caused by the invasion of the lungs by the Aspergillus fungus. This fungus grows on damp materials of all descriptions, producing mould and forming spores or seeds, and it is these spores that, upon being taken into the body, produce inflammation of the parts in which they settle. Damp or mouldy food and litter are the chief means of infection, and should be avoided, for there is little hope of treatment being effectual when once the birds are invaded. As a general tonic, add 40 grains of citrate of iron and quinine to every gallon of drinking water for a couple of weeks, as this combination seemingly has a good effect in helping contend with the trouble.

E. W. K. F. The post-mortem examination of the chicks showed that the lungs were solid with pneumonia in each case, and also that the birds were the subjects of rickets. The bodies gave one the impression that they had been trampled upon, and this in their weakened condition would be sufficient to kill them. I think that the addition of 2 per cent. cod liver oil to their mash, and greenstuff to their ration, and also fish meal, would do much to help overcome the rickety condition and improve their general health, and if only the sun would shine, they should now go ahead.

L. B. The post-mortem examination of the Brown Leghorn pullet showed that impaction of the gizzard and stomach had occurred, and this was due, in my opinion, to the feeding of uncrushed grain in the entire absence of grit of any description. Although birds can digest grains that have been prepared for them by crushing or grinding, grit is a necessity if whole grain is fed. There were no signs of actual disease, I am glad to say, and the bird was in good condition otherwise.

J. H. The post-mortem examination of the W.L. hen showed that haemorrhage into the lungs had occurred as the result of excessive straining in the efforts to expel a collapsed and thin-shelled egg. The ovary was very active, and this may be the cause of the imperfect shelling, but I think it would be advisable to allow crushed oyster-shell grit, and add some green meat to the ration.

J. B. There were no lesions of disease to be discovered in the three chicks sent in for examination, and the yolks were perfectly absorbed in these three specimens, so it would appear that if they have suffered from diarrhoea that there is something wrong with the foods or feeding. Microscopical examination failed to reveal the presence of parasitic organisms of any description, but the food was not being digested properly, and apart from this digestive disturbance I could find nothing wrong with them.

B. W. D.

Cause.—The bacillus pullorum.

Infection.—Chicks are infected by the germs being passed into the yolk from the ovary of a "carrier" hen; (ii.) by contact with infected materials, houses, hovers, equipment, etc.; (iii.) by persons and animals coming from an infected place and carrying the infection on the hands, feet, clothing, etc.

Mortality.—Usually very high, but mostly occurring up to the tenth day, after which natural immunity becomes established, although birds infected late in the susceptible period may die up to the 21st day.

Symptoms.—These are variable and by no means characteristic, sometimes there is diarrhoea and sometimes not; moping, muddling together, want of appetite, pasting up behind, ruffled feathers, etc., which are in reality no more than the signs of grave illness. Quite often numbers are found dead without having shown any symptoms whatever.

Post-mortem appearances.—It is not always possible to diagnose the disease by post-mortem examination alone, and where there is any doubt, or in cases where the mortality has been high and **nothing** to be seen P.M., a bacteriological examination is necessary to establish the presence of the disease.

Recommendations.—Isolate infected hatches, and keep any survivors away from breeding stock, or birds intended for such, and use none for breeding purposes unless tested by the agglutination test and found not to be "carriers." Breeding stock should be tested at least twice yearly, and reactors removed from the breeding pens, cockerels as well as pullets and hens. Everything that infected birds have been in contact with to be very thoroughly disinfected, and the litter and droppings burned.

The use of pedigree trays in the incubator will greatly lessen the mortality by confining the disease to the birds in those small units.

COCCIDIOSIS.

Cause.—The cause is the Eimeria Avium, a microscopic organism belonging to the animal kingdom, and possessing a complicated life history.

Birds affected.—All classes of birds are liable to the invasion of these parasites, wild as well as domestic.

Lesions.—Inflammation of the intestines, especially the cloaca, and secondary necrotic areas in the liver. In aquatic birds the kidneys are attacked.

Mode of spread.—The disease is spread mainly by the droppings of diseased birds contaminating the soil, food or water, but it may be carried from an infected area by the boots, wheels of vehicles, or equipment. Chicks may also become infected while still in the shell, should the parasites have wandered from the cloaca to the oviduct, and become included in the egg during its stay in the egg canal.

Sanitary measures.—Clean out and disinfect the floors of the houses every other day with strong fluid disinfectants, and burn the litter. Before re-occupation by healthy birds the runs should be disinfected by watering with a 3 per cent. solution of commercial sulphuric acid, or dressed with lime at the rate of 6 cwt. to the acre. The same solution may with advantage be used to disinfect the floors of the houses and the equipment. After disinfection the runs should be left vacant for at least fifteen days.

(Continued at Foot of Column Next Page).

Some Fruit-Growing Notes
to help Poultry-Keepers.

By F. W. WHEELER, F.R.H.S.

Pruning and Spraying, Etc.—We all strive hard to have our pruning done by the end of January because of the busy season of incubation work, and also to be free to seize every suitable day for spraying; but, alas! we are sometimes slaves of circumstances, and not always able to make circumstances suit our requirements. For instance, when you have rain on twenty-six consecutive days (following other heavy rainfalls) it is certainly not easy to finish a big pruning undertaking, and still less is it possible to spray, because, although a great part of the former can be done (in spite of a certain amount of discomfort) during light rainfalls, spraying would only be wasted labour in the wet weather.

S. P. B. A.

Food Purchase Scheme.

IMPORTANT ANNOUNCEMENT.

THE COUNCIL OF THE S.P.B.A. HAS PLEASURE IN ANNOUNCING THAT ARRANGEMENTS HAVE NOW BEEN MADE WHEREBY MEMBERS CAN BE SUPPLIED WITH FOODSTUFFS AND THE S.P.B.A. MASHES FROM ALL THE VARIOUS DEPOTS, IN LOTS OF 1 CWT. F.O.R., BAGS FREE.

MEMBERS CAN BE SUPPLIED AS FROM THIS DATE.

FULLER PARTICULARS WILL BE FOUND IN ANOTHER PART OF THIS ISSUE.

TOM NEWMAN,
SECRETARY.

Undoubtedly we have had a lot of this lately, but as the saying goes, "it is an ill wind that brings nobody any good," or shall I say, an "ill rain if it does not do us any good," for there is one thing that I have noticed, namely, the hatchability of eggs has been exceptionally good—due, perhaps, not only to the extra moisture in the air, but also to the very wet floor of my incubator room. It is a cellar, with an earth floor, and many mornings I have found pools of water there after the continuous rains. In passing, I might say here that Mrs. Wheeler has derived much help from our greenhouses during these successive wet days, and has been able, in comfort, to bring along several goods hatches of birds. We find the greenhouses exceedingly helpful and convenient. On the raised flower borders, where the tomatoes grew and the chrysanthemums gave us a good late autumn crop, we now stand our home-made hurricane lamp hovers, free from floor draughts.

They are easily moved about, as only the sleeping compartment is necessary, for during the day the chicks run out on Mother Earth and are free from cold winds. You may say, how about grass! Oh, that is no trouble. You should see the fun when they mob the pieces of "perpetual green," etc., that are stuck in the ground. It has little chance of getting stale, for they devour it ravenously. The taste is cultivated when only a few days old and relished daily afterwards.

After a short time they are moved along to the out-or-door hovers or houses, according to the prevailing weather, but it has given them a good "send-off." I wonder if other poultry-keepers have made this additional use of their greenhouse? The warmth from the hovers is beneficial to other plants that are being stored over the winter months. I remember reading of a big tomato grower who used to turn poultry into his greenhouses between his different crops, to clean up the insect pests. I fear I am wandering far from the "Pruning," so must resume before all to-day's space is occupied with "etc."

Should the wet weather have prevented readers from completing all their pruning work, I should like to add a few parting remarks before I switch on to that of Spraying. Be sure to gather up the prunings so often left because other jobs are calling for attention. This gathering up and BURNING of cuttings is most important, particularly if you have cut away any diseased wood. Did you carefully examine the main stems for any sign of canker? For if diseased spots are attended to in their early stages, not only will "a stitch in time save nine," but a tree can often be saved, and, what is more, the prevention of the trouble spreading to other trees is assured.

Treatment.—Dissolve one dram of powdered Catechu in every three gallons of the drinking water for a month. The same dosage of Sulphocarbolate of Zinc is also very effectual, and should be given if the disease does not respond to the Catechu, or in cases where the trouble is in the acute form.

A link between Pruning and Spraying comes in here, because a copper sulphate wash (or perhaps two) during the summer will prove very helpful in dealing with this trouble. Bordeaux Paste, or "Bordorite" as used for spraying potatoes), can be purchased ready for diluting with water to the necessary strength.

I carried out some experimental work on a few very badly infested trees, and was surprised to see what large wounds could be cured; but I noted that it was essential to cut away all diseased bark until clean parts were reached. If this was not done thoroughly the wounds would not heal over. A dressing of Stockholm tar was put to well cover over and around the wound. When cutting diseased wood do not go to healthy wood before dipping the knife in paraffin, or cleansing in some way.

I was asked the other day about "Maidens," so perhaps a word or so respecting these might close Pruning Notes, but if there is any point that has not been dealt with, and a reader would like information about, then please SEND ALONG YOUR QUERIES.

The first consideration in dealing with the pruning of MAIDENS is to decide what length of stem you require. If poultry are to run under the trees, then do not have less than 3 feet. Choose three nice eyes as near this height as possible, and cut off the head just above the top selected bud.

Should the stem not be tall enough, then leave the maiden uncut for another year (do not even "tip"). Any laterals growing on the stem can be shortened back to one or two inches. The reason for not entirely removing these is that it will help to give a thicker and sturdier stem. After two seasons these can be cut back, leaving a clean and smooth stem.

When the head has been cut, it is a good thing to give attention to the three main shoots required to start the head of the tree, and attention during the summer months will considerably help. Pinch the heads of any other shoots after they have made six or seven inches of growth in order to divert the energy of the tree into the three potential leaders. Should one of these three want to run away from the others this can be checked by nipping its head.

The following winter you will cut back hard to side eyes, so that when growth starts again you will increase the size of the head and obtain six main leaders.

My parting remarks on "Pruning" have so lengthened out that the opening ones on Spraying must be brief. The important one to start with is, that you must seize the fine and calm days for spraying with caustic washes or "winter washes" for the removal of moss and lichen on the trees before the buds begin to move. Where trees have been neglected I have frequently found, on close examination, that the fruiting spurs have been so badly attacked that the fruit eyes were ruined. As I have already said, the exceptionally wet weather has delayed operations, so if any suitable days come along, get to work at once, and I trust before my next article appears we shall be enjoying better weather. In continuing these Spraying notes I want to touch on some points not mentioned in my book, published by the S.P.B.A. Council. Price 1s. (1s. 3d. post free).

(Continued at Foot of Next Column).

Commercial Poultry Farming.

By T. W. TOOVEY.

(Continued from P. 128.)

The season of the year for Breeding being present, I will postpone other matters for this vital question. I commenced experimenting with first crosses in 1921. After two seasons I came to the definite conclusion that the first cross was superior for my purpose to any pure breed. I carried the experiments further, and bred from first-cross hens mated to pure-bred pedigree males. I realised that if these cross-bred hens were equal to the first-cross for utility purposes, I could save both trouble and expense, and limit the number of stock reserved for breeding. After trial I considered they were on a parity with the first-cross. This season for the first time the breeding pens are stocked with nothing but first-cross or second-cross hens mated to pure-bred males. There is, however, a system observed in the mating. The breeds employed are limited to four—White Leghorns, White Wyandottes, Rhode Island Reds, and Light Sussex. Each 2,000 bird section has two breeding pens. In one 50 selected early pullets or hens of 75 per cent. heavy blood to 25 per cent. White Leghorns are mated to five pedigree W. Leghorn cocks or cockerels. In the other are 50 pullets or hens containing 75 per cent. White Leghorn blood, mated to two W. Wyandottes, two R.I. Red and one Light Sussex cocks or cockerels. Eventually every layer on the farm will contain a proportion of W. Leghorn blood mixed with all or some of the other three. Failure to hatch and rear the necessary replacements seems to menace the prosperity of many farms, a bad rearing season will be felt in its effects for the two following years, and may destroy all prospects for profit-making.

Why there should be such a strong prejudice and bias against the natural methods of hatching and rearing by hens, it is difficult for me to understand, as it seems to me the only safe and reliable way, while at the same time being less trouble and causing far less anxiety. The authorities say hen-hatched and reared chickens are not immune to B.W.D. or Coccidiosis. As far as I know I have never seen either, or even gapes on this farm. Last season we made a special effort, owing to our heavy losses. One man and two lads helped by the man's little son, out of school hours, hatched 8,000 chickens from 10,848 eggs, or 73.73 per cent. of the eggs laid down; this was too many for the plant, which is not designed to take more than 6,000 chickens a season. I only mention it to show what can be done in a properly-designed hen-hatching and rearing plant. The present system is better than that employed last year, as more room is given to the growing pullets, and the work is spread more widely, three men being responsible instead of one. This season, so far, I see 77 per cent. of the eggs laid down have produced chickens. The hatching and rearing plant employed is the result of many years' experience, and was gradually evolved. I described it up to date in the last edition of my book. It would take far too much time and more space than I should like to ask for to describe it here, but I would like to take the opportunity of describing one improvement that has been designed this season—the invention of a poultryman, who is using the plant for the first time this season. The arrangements for feeding the chickens in the coops have always been a weak spot. Two or three different methods have been tried, the last but one was a narrow trough that slid into the side of the coop; this also had its disadvantages, as the sight of the food induced many hens to scratch violently in an endeavour to remove the food from the trough, and thereby injure their chickens. The new trough is outside and faces the front of the coop; it is roofed in with a slanting lean-to roof and covered on three sides; the bottom of the trough projects three inches beyond the trough proper, and a platform is thus formed on which the chickens stand to feed. This platform catches spilt food, and also fixes automatically the distance the trough should stand from the coop. It is a very valuable improvement. If any enterprising appliance maker likes to place on the market the nesting boxes, the coops and runs and the chicken houses, he is quite welcome to come here and take all the particulars.

The routine of rearing is as follows:—Early in November, as soon as the yearling culling is finished and the laying flocks are only occupying two sections, and the third is resting, we set all the sitting hens we have, and the first chickens are off early in December, from then onwards we set hens week by week. Hen hatching and hen rearing means a long but quick season; these half-hardy half-bred poultry can be hatched as late as the middle of May profitably. If two men are managing completely upwards of 2,000 laying hens, they must hatch and rear slowly. They must have a system that, although slow, is reliable and simple; the hens see to all questions of temperature. Each pair of men have 52 nests and runs, 48 coops and runs and two chicken houses; the latter can each be used in ten separate compartments, which is equal to 20 houses. In the early part of the year sitting hens are scarce, but still we manage to have some 2,000 chickens on hand by the end of February, or about one-third of our requirements. The cockerels from these early broods are sold when about eight weeks old, and realise good prices, up to May, for the Poussin trade. The chickens are placed in the coops in broods of 12 or 15, according to the time of the year; they require to be in the coops from five to six weeks, according to the season. They then pass to the chicken houses for another six weeks. The pullets are then moved into their permanent quarters in the laying houses in the empty section that has been resting for several months. These houses are gradually filling through the spring and summer, the last pullets passing into them early in August, then for August, September and most of October all three sections are in occupation. At the end of October culling takes place; one section is emptied and enters on its rest. In the two at use one is mainly, if not entirely, occupied by pullets of the year, the other by the best of the hens—both one and two-year-olds. Besides the plant mentioned each main section is allotted two cockerel houses capable of taking 150 each. Here the later birds are fed off for the table, finishing with a week in the fattening coops. We have no difficulty with chickens in December, cramp is practically unknown. The whole secret of chicken rearing is to keep them outside, whatever the weather.

We feed soft food entirely for the first week:—Biscuit dust, middlings, ground oats, and maize meal, with a sprinkling of fish meal or meat meal and a little cod liver oil. We are much indebted to the Editor for the last ingredient. The second week some dry chick feed is mixed with the mash in the afternoon. The third week soft food morning, dry chick feed afternoon are the rations. No dry mash is used on the farm, and all food is fed in troughs. The chickens are only fed twice daily, and after the first day are not shut in the coops either night or day. The coops are open-fronted; the coops and the runs together are vermin-proof. Soft food should be fed in a dry crumbly condition.

ERRATA.—Would readers please note that paragraph three on page 127 in last week's issue (24th February) should read: "It is worked in water-tight sections of **2,000** birds each," and not "water-tight sections of 200 birds each" as stated.—(Ed.)

S.P.B.A. FOOD SCHEME—ADDITION TO LIST.

F.O.R. TEWKESBURY—Layers' Mash, 11/9 per cwt.; Growers' Mash, 11/9 per cwt.; Chick Mash, 13/6 per cwt.; Breeders' Mash, 13/- per cwt.: No. 1 Chick Feed, 18/3 per cwt.

Scientific Poultry Breeders' Association.

THE WADHURST BRANCH.

In company with Mr. Bostock Smith, I journeyed down to Wadhurst on Saturday last, the 20th, and lectured to the very live Wadhurst Branch of the S.P.B.A.

Mr. Bostock Smith took "Rabbits for Fur" as his subject, and it is very evident that a large number of the members are beginning to take an active interest in this—dare I term it—"side-line" to the Poultry Industry. Mr. Bostock Smith was listened to very attentively. Many pertinent questions were asked him at the end of the meeting.

Following him, I read a paper on "Some Little Things That Matter."

The Branch is running a small Laying Test under the supervision of Miss Bennet.

Dr. Rosedale (President), who presided at the meeting, spoke of the active interest taken in the work by the members, and referred to the enthusiasm of their very energetic Secretary (Brother Everard).

It was altogether a very enjoyable little meeting, and both Mr. Bostock Smith and myself regretted that we had to leave so soon in order to get back home.

THE KEIGHLEY BRANCH.

The Secretary of the Keighley Branch writes and asks us to state that Mr. Snowden's address he is giving to the members of the above Branch is entitled, "Incidentals on a Pedigree Poultry Farm—January to June," and "The Building Up of a Pedigree Laying Strain," as announced in "Eggs" previously.

URGENT NOTICE FROM THE MIDLAND FEDERATION OF FEATHER AND FUR SOCIETIES.

In consequence of a fire that recently occurred in the Mail Train between Euston and Manchester on the night of February 10th last, the Midland Federation are informed by banking houses that it is possible that certain cheques payable in certain districts have been destroyed.

At a meeting of the Federation Council on Friday last, it was felt that this unfortunate Mail Train mishap has also resulted in a loss of a large number of loose money, postal order, Treasury notes and cheques, returned counterfoils and book of tickets, which had been posted the same day, and had failed to be delivered to their office address at 63, Old Meeting Street, West Bromwich.

It is urgently desired to give full publicity to the above matter, and any ticket book holder, having returned counterfoils and subscriptions or letters on that date, will they be good enough to write to the Secretary at once, so that not only can the matter be acknowledged, but representation can be made regarding the matter to the authorities responsible for such loss.

All subscriptions up-to-date have been acknowledged, so that any person who has sent, and has not received an official receipt, is asked to write immediately to the Secretary, Miss F. Shuker, 63, Old Meeting Street, West Bromwich.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION. APPLICANTS FOR MEMBERSHIP.

Reade, Mrs. R., Stutton Manor, Ipswich.
Ralston, D., Bankdale, Moffat, Dumfries-shire.
Greenfield, H. C., 86, Crane Street, Salisbury, Wilts.
Girardot, J. M. C., The Gate House, East Hoathley, Halland, Sussex.
Langley, Mrs. H., The Grey House, Long Itchington, Rugby.
Stewart, P., Chapelknowe P.F., Cleland, Lanarkshire.
Spilman, J. H., Gardham, near Beverley, Yorks.
Alty, J. J., The Bungalow, Retford Road, South Leverton, Retford.
Pitman, C., 24, Asylum Road, Milton, Portsmouth, Hants.
Truelove, C., 29, Rutland Road, Stamford, Lincs.
Roberts, H. Drummond, "Lauriston," Dane Hill, Sussex.
Garner, Mrs., Grange Farm, Old Heath, Colchester.
Cowan, G., Hallguards, Ecclefechan, Lockerbie.
Booker, H., Myrtle Grove, Southwell Road, Mansfield, Notts.
Alcock, Messrs., Bros., The Hayes P.F., Dordon, near Tamworth.
Holding, Mrs. G., Catts Farm, Kingsclere, Newbury.
Ross, C. D., Barkskimming Mills, Mauchline, Ayrshire.
Brook, H. E., Eng. Com. R.N. (retired), Cliffside, Weston, Southampton
Cotton, A. S., Sacombe Ash P.F., Sawbridgeworth, Herts.
Hewetson, R. A., Larling, Norwich, Norfolk.
Wells, H. C., 333, Manchester Road, Heaton Chapel, near Stockport, Cheshire.
Webster, S., Pasture Lane Farm, Rainford, near St. Helens, Lancs.
Ferme, Mrs. M. C., Riggonhead, Tranent, East Lothian.
Biggs, T., 5, Glassmill Lane, Shortlands, Kent.
Tweedie, W. E., South Newington, Banbury, Oxon.
Thompson, G. W., Hill Poultry Farm, Ampleforth, York.
Holgate, F., 1, Fraser Street, Burnley, Lancs.
Walsh, Mrs. M., Ballynoureen House, Murroe, Co. Limerick.
Arrigan, Miss P., 82, O'Connell Street, Limerick.
Spratt, Miss E. A., 82, O'Connell Street, Limerick.
Burton, A. M., "The Hermitage," Basildon Road, Laindon, Essex.
Bell, M., Doagh Road, Ballyclare, Belfast, Ulster.
Tennant, E. N., Burrs Farm, Great Clacton.
Howes, T. E., Manor Farm, Thurston, Suffolk.
Thompson, L. S., Reston, near Louth, Lincs.
Cooper, Mrs. G. M., Corrie, Kettlewell Hill, Woking.
Little, Miss E. M. C., Pitchcombe House, near Stroud, Glos.
Cameron, Mrs. M., Navisbank, Fort William, Inverness-shire
Romanes, Mrs. A., Ampleforth, York.
Basnett, S. H., Halton Brook P.F., Runcorn, Cheshire
Beckton, Major J. J. H., R.A.M.C., Beechlands, Chagford, Devon
Johnson, W. S., Gorefield, near Wisbech.
Hodgson, H., Station Road, Holme, on Spalding Moor, York.
Holland, Mrs. E. B., Westbrook Farm, Gillingham, Dorset.

MEMBERSHIP OF THE S.P.B.A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.

More about Dry Mash Feeding for Ducks.

By **MISS M. F. SAYER.**

Before I commence the recital of what the dry-mash-fed ducks have actually accomplished, I should like to give a brief history of the conditions with which they have had to contend.

They were hatched during the last week in June, and their parents were birds I had purchased earlier, so that I had only their flock average before me. Their subsequent performance in my trap-nests has not been particularly good, and I am discarding these birds as breeders.

The farm itself is situated on a low-lying meadow, through which runs a small stream. In previous seasons no trouble has occurred from floods, but this winter the exceptional weather has caused a lot of trouble. In November the pens were buried ten inches deep in snow, in early December more snow arrived, while on December 23rd the pens were flooded and the ducks escaped. They were caught and returned to their quarters four days later, but on January 3rd the whole farm was inundated, and, for six days, old ducks, young ducks, breeders, layers, dry fed and wet mash birds were all thoroughly mixed up, and amused themselves on what appeared to be a large lake. During this period it was practically impossible to feed them at all, as the surrounding meadows were also flooded, and the birds remained over the site of the farm.

When at length the water subsided a day was spent chasing down the ducks and sorting them into their original pens, a proceeding hardly calculated to assist heavy egg production. All the ducks that were laying at the commencement of the flood promptly went on strike, and moulted. Several who were just getting over a pullet moult decided to join the strikers, while second and third season birds just about to lay also decided on a longer rest. Not an egg did I get from any duck, except those fed on dry mash, until February 14th, when one presented me with an egg (as a Valentine, no doubt).

These are the trials that have beset the birds in my experiment. Now for actual results. In my article in the 1926 Register I gave an account of the feeding and management of the ducks up to the age of four months. At this period they were divided into two groups, A and B, the former to continue on mash ready mixed, the latter to have free choice of ingredients. Both groups have grass runs with a small piece of the stream attached, while charcoal and limestone grit is always available in small hoppers. No houses were used except in the case of group B, as all my birds are kept on the open-air system. The B's were trapped in trapnests of my own design, composed chiefly of wire-netting. The A's settled down very happily in their new quarters, and seemed to thrive on their mash, which was composed of 8 lbs. middlings, 3 lbs. bran, 6 lbs. maize meal, 2 lbs. fish meal. Their corn ration consisted of a mixture of equal parts of maize and oats (parts by measure), the birds being given one large handful each per diem.

In December, seeing the eagerness with which the B's consumed flaked maize, I altered the A's mash to 8 lbs. middlings, 3 lbs. bran, 2 lbs. flaked maize, 4 lbs. maize meal, 2 lbs. fish meal. The birds commenced to lay just before Xmas, at the age of six months, and, in spite of the upheavals caused by the floods, are still laying and putting up a very fair average. Their mash was altered at the beginning of January to 8 lbs. middlings, 3 lbs. bran, 8 lbs. flaked maize, 3 lbs. fish meal. They have beaten their wet mash sisters in numbers of eggs, and so far have never laid soft-shelled or under-weight eggs.

Group B, as I mentioned before, were to choose their own mash. A small house accommodated six hoppers, containing bran, middlings, maize meal, fish meal, oats and whole maize respectively.

Although they had been fed on dry mash from the age of five days, they ignored all the mash ingredients and the oats, and ate nothing but whole maize. When this had continued for ten days I removed the maize hoppers, and put the birds on the same corn ration as group A. They next attacked the bran hopper, and seemed to eat very little else. A week later I returned the maize hopper, hoping that they would have ceased to behave like small boys at a tuck shop, but they immediately abandoned everything else to eat that maize.

On November 10th I ceased to allow them free choice of corn at all, and filled up their maize hopper with flaked maize. This proved to be a most popular move; so much so, in fact, that I commenced to use flaked maize in the mash for Group A.

Fish meal they entirely ignored for some time, and apparently have no use for it even now. In fact, the only times I have refilled the fish meal hopper have been when repairing damage caused by floods and snow.

The mash as they compose it is roughly: 21 lbs. flaked maize, 12 lbs. bran, 5½ lbs. middlings, ½ oz. fish meal, or none at all.

One duck (No. 144) laid her first egg on 23rd December, and continued after her return to the pen on 27th December until the floods on 3rd January. The water rose so suddenly and so high that a punt had to be chartered and a rescue party punted across to release group B from their traps. This was too much for Miss 14, and she stopped for three weeks, but is laying now. The rest of group B were also upset, and did not come into lay until 1st February.

Considering that they do not touch fish meal, this seems rather a proof of the necessity of fish meal for egg production, though the weather conditions have been so appalling that they have not had a fair test. They are laying quite well at present, however, and they have provided me with much food for speculation. I intend to experiment with several feeding menus during the coming season, and when I have reared the birds to the age of four months I hope to try an all-maize fed pen and a no-fish meal pen, as well as several others.

I need not enlarge on the obvious advantages of dry mash, such as the saving of labour, time and waste, etc., but on going through my accounts I find that the dry fed ducks in production cost less to feed than the same number of wet mash ducks producing the same number of eggs, which is yet another gain. I do not claim to have discovered the perfect laying or rearing mash by any means, but I have found dry mash so successful in a small way that I intend to bring up all my stock on it in future, and I trust that my experience may prove of value to others.

WYE COLLEGE COUNTIES' LAYING TRIALS, 1925-26.

(KENT C.C. AND SURREY C.C.).

REPORT FOR FOURTH PERIOD (7th Jan. to 3rd Feb., 1926).

This period commenced under ideal weather conditions conducive to good egg production, and the birds attained a 60 per cent. daily output. At the end of the first week, however, a sudden change brought very severe weather conditions, and deep snow lay on the ground during the major portion of the remainder of the period. This necessitated the birds being confined to their houses, and the prolonged confinement was reflected in egg production, which gradually fell to a 35 per cent. daily output. The number of eggs produced during the period 3,111, being 438 eggs less than the previous period, and bringing the total up to date to 12,776.

Health.—Rhode Island Red pullet, No. 205, died suddenly during the night 7th to 8th January. Broncho-pneumonia was found to be the cause of death. The sudden changes of weather conditions with resulting alterations in routine were probably accountable for a number of high productive birds falling into a quick moult. There have been twenty-five birds in the moult, whilst fourteen birds have been broody, and twenty-four birds have failed to produce any eggs during the period. A satisfactory standard of health has been maintained generally throughout the flock. There still remain nine birds which have not yet commenced to lay.

Summary.—Appended is the summary of positions of the leading pens up to date. Figures are Eggs and Points respectively:—

KENT.

White Leghorns.—Dr. Harbord, 289, 2,971; H. S. Godsmark, Esq., 263, 2,690.

White Wyandottes.—H. M. Moore, Esq., 343, 3,499; F. & T. Neame, 328, 3,369.

Rhode Island Reds.—Misses Jones and Atkins, 320, 3,205: P. C. Hills, Esq., 282, 2,658.

Light Sussex.—Mrs. M. C. Cowan, 308, 3,018; Mrs. M. Crookes, 297, 2,811.

A.O.V. (Sitting Breed).—Campkin Bros. (B.Rs.), 258, 2,490; Mrs. M. Crookes (B.Rs.), 201, 2,119.

SURREY.

White Leghorns.—H. A. Boxall, Esq., 320, 3,255; J. B. Bantoft, Esq., 327, 3,244.

White Wyandottes.—H. J. Willis, Esq., 419, 4,068; H. Rowntree, Esq., 376, 3,419.

Rhode Island Reds.—A. Kirsch, Esq., 307, 3,074; A. Brown, Esq., 290, 2,845.

Light Sussex.—Miss E. M. McGaw, 303, 2,834; H. W. Homewood, Esq., 295, 2,788.

"DAILY MAIL" EGG-LAYING TEST, 1925-26.

(Recognised by the National Poultry Council.)

REPORT FOR FOURTH MONTH—11th Jan. to 7th Feb., 1926.

A break in the seasonal rise in production, as the result of adverse weather conditions, is to be reported for the fourth period of four weeks. All sections show a falling off compared with the previous month's figures. The average of the pure-bred second-year hens was 6.81 per bird, that of the first-cross hens was 9.60, and although the first-cross pullets put up a score of 13.66 that was a decrease of 1.49 eggs per bird on the previous month's record.

The effect of the severe weather on the hens, both pure-bred and first-cross, was much more marked than on the first-cross pullets. The daily collections of eggs showed wide variations corresponding with the changes in the weather. On the first day of the month, when conditions were comparatively favourable, 307 eggs were collected but by the 10th day, after several days of bad weather, it fell to 189. With the improvement which then set in it rose again and finished at 318 on the last day.

It should be pointed out that as one of the objects of the test is to provide sittings of eggs, the feeding has been directed more with the view to the production of strongly fertilised and hatchable eggs than to the putting up of high records. This would doubtless, to some extent, account for the somewhat low records of the hens, both pure and firstcross. For, although the latter are not being bred from, they are for the purpose of comparison, fed on precisely the same rations as the pure-bred hens.

The general health of the birds is good.

J. N. LEIGH.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs and Points to date respectively:—

Section 1—Leghorns—Any Variety (7 Hens).—Balsham Manor Farm, Cambridge, 366, 329; R. A. and A. M. Johnson, Chalford, Glos., 281, 269; Mrs. Heber-Percy, Hodnet, Shropshire, 256, 249; Viscount Elvedon, C.B., C.M.G., M.P., Old Woking, Surrey, 233, 232.

Section 2—Wyandottes—Any Variety (7 Hens).—A. K. Speirs Alexander, Norwich, 326, 325; H. D. Barley, Kings Norton, Birmingham, 299, 298; Frank Snowden, Cowling, Keighley, 266, 266; W. and T. Salt, Enderley, Leicester, 268, 264.

Section 3—Rhode Island Reds or Light Sussex (7 Hens).—Major G. T. Williams, Perranwell, Cornwall, 236, 235; Edward Beer, Hadleigh, Suffolk, 232, 228; B. A. Wolryche-Whitmore, Stamford, 232, 227: A. A. Plimpton, Beverley, E. Yorks, 219, 218.

Section 4—Any Other Breed (7 Hens).—Wm. Hamnett, Blackpool, 199, 197; P. Mills, Bishop's Castle, Salop, 179, 178; Oscar C. Brown, Scunthorpe, Lincs., 175, 162; Mrs. Ward-Jackson, Kingsland, Herefordshire, 177, 157.

Section 5—First Cross Hens competed in "Daily Mail" Test, 1924-25 (7 Hens).—P. E. White, Market Drayton, Salop, 326, 315; H. Sutton and Sons, Little Hoole, Preston, 299, 293; Sydney Smith, Clifton, Nottingham, 257, 257; Warwick Rogers, Market Drayton, Salop, 252, 244.

Section 6—Any First Cross (7 Pullets).—H.R.H. The Prince of Wales, Duchy of Cornwall Farm, 439, 436; Albert V. Wallis, Clanfield, Oxford, 384, 374; A. Mansell, Kingston Stert, Thame, 446, 349; J. A. Brawn, M.A., Walsall, 342, 341.

The Laying Test is open to visitors on Tuesdays and Saturdays, between the hours of 2.0 and 4.0 p.m., and at other times by special appointment with Mr. J. N. Leigh, Dodnash Priory Farm, Bentley, near Ipswich. Complete set of the Monthly Reports can be supplied, post free, for 4/-; applications for same, as also particulars of the National Egg-Laying Test, should be made to the Hon. Sec., Dodnash Priory Farm, Bentley, Suffolk. All poultry-keepers, and those interested in advancing the interests of the industry, should become members of the National Utility Poultry Society. Particulars of the Secretary.

SEVENTH MIDLAND LAYING TEST.

Details of leading pens in each section, fourth month, 112 days, ended 21st February, 1925 (four birds per pen):—

White Leghorns.—Wilson Beattie, 241 pts.; J. Hampson, 227; A. Pickard, 227.

White Wyandottes.—F. E. Townson, 270 pts.; Mrs. Seed, 263; Rev. W. H. Blight, 256.

Rhode Island Reds.—Miss E. Gibson, 240 pts.; F. and T. Lumb, 228; G. T. Warr, 223.

Light Sussex.—F. R. Welch, 209 pts.; Wilson Beattie, 170; Capt. A. Munro Spencer, 153.

A.O.V. Light Breed.—T. Brooksbank (Bf. Rks.), 155 pts.; J. Martin (Bf. Orps.), 143; A. Hobson (Bf. Rks.), 140.

SINGLE BIRD SECTION.

Light Breed.—J. Armitage (W.L.), 52 pts.; Mrs. E. Fort (An.), 53; Mrs. W. H. Sershall (B.L.), 51.

Heavy Breed.—Mrs. E. Nicholls (W.W.), 65 pts.; B. Allbutt (W.W.), 65; C. W. Cracknell (W.W.), 64.

Deaths Cause as diagnosed by Ministry of Agriculture.—No. 9, W. R. Morris Hammond, "broken egg present in the oviduct." No. 26, A. Pickard, "rupture of the ovary."

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 26th FEBRUARY, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is in fair upply and cheaper at Bristol and Hull, while at London recent prices are barely maintained, the average quotation being 11s. 10d. per cwt. as compared with 11s. 1d. last week. Imported is a slow rade at easier figures, No. 1 Manitoba averaging 14s. 1d. per cwt., reduction of 4d. per cwt. on the week. Barley is in little emand, but home-grown generally sells at recent prices, while mported is slightly cheaper at Bristol and Liverpool. English ats meet a limited trade, but generally realise late rates, while oreign are slightly easier at most centres. Maize is in ample upply, and, with a quiet demand, prices have declined at all arkets, Argentine averaging 7s. 5d. per cwt. as against 7s. 8d. ast week.

Milling offals are freely offered, and, with a slow inquiry, both bran and middlings (coarse) are again quoted at lower igures, the former averaging about £6 16s. and the latter £7 per ton, as compared with £7 and £7 5s. respectively in the preious week and £8 4s. and £8 9s. at the beginning of the year. Meals attract little attention, and any price changes, several of which are reported, are in buyers' favour. Linseed meal meets a variable trade, while some descriptions of cotton seed cake have become cheaper at London and Bristol.

MILLERS' OFFALS.—Bran (British): Bristol, £7; Hull, £6 17s; Liverpool, £7; London, £6 7s. Broad Bran: Hull, £8 7s; London, £8 5s. Middlings—Fine (Imported): London, £7 15s; Coarse British): Bristol, £7 15s; Hull, £7; Liverpool, £7; London, £6 7s. Pollards (Imported): Bristol, £6 2s; Hull, £5 15s; Liverpool, £5 17s; London, £5 12s. Rice Bran: Bristol, £7; Liverpool, £6 10s; London, £6 15s. MEAL.—Barley Meal: Bristol, £8 17s; Hull, £9 7s; London, £9 10s. Maize Meal: Bristol, £9 10s; Hull, £8 10s; Liverpool, £8 17s; London, £9 5s. Maize Meal (S. African): Bristol, £8 10s; Hull, £7 17s; Liverpool, £7 15s; London, £8. Maize Germ Meal: Hull, £8 10s; London, £8. Maize Gluten Feed: Bristol, £10 10s; London, £9 10s. Locust Bean Meal: Bristol, £9 15s; Hull, £9 10s; Liverpool, £9 10s; London, £9 12s. Bean Meal: Bristol, £13 10s; Hull, £11 12s; London, £12 5s. Fish Meal: Bristol, £21; Hull, £20 10s; Liverpool, £19; London, £18 15s.

EGGS AND DEAD POULTRY.

British, Irish and best selections of imported eggs are offered in increasing quantities, but with buyers holding off prices are considerably reduced on the week. Best quality dead poultry is readily saleable at fully recent figures.

Week-end Prices—Eggs (per 120): British, 18s 6d, 16s 9d; Irish, 13s 0d, 17s 3d; Danish, 18s 0d, 17s 0d; Dutch, brown, 19s 0d, 18s 0d; Dutch, mixed, 17s 9d, 17s 0d; Belgian, 16s 9d, 16s 0d; Italian, 16s 6d, 15s 9d; Egyptian, 10s 9d, 9s 3d; Chinese, 14s 3d, 10s 0d; Argentine, 13s 6d, 11s 3d; Polish, 14s 0d, 13s 0d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 10d, 1s 6d; Irish, 1s 4d, 1s 2d; Others, 1s 7d, 1s 1d. Ducks, 1s 8d, 1s 5d. Geese, 1s 3d, 1s 1d. Turkeys, 1s 7d, 1s 4d.

EGGS.

Per Doz.—Ashford: First, 1s 8d; Second, 1s 5d. Birmingham: First, 2s 1½d; Second, 1s 9½d. Bridgwater: First, 1s 6d; Second, 1s 4d. Chelmsford: First, 1s 9½d; Second, 1s 7½d. Colchester: First, 1s 9½d; Second, 1s 6d. Doncaster: First, 2s 4d; Second, 2s 2d. Dorchester: First, 1s 4½d; Second, 1s 3½d. Exeter: First, 1s 9d; Second, 1s 8d. Hereford: First, 1s 8d. King's Lynn: First, 2s 0d; Second, 1s 10d. Llandilo: First, 1s 6d. Mold: First, 2s 1d; Second, 2s 0d. Montgomery: First, 1s 9d. Newport (Mon.): First, 2s 0d: Second, 1s 11d. Norwich: First, 1s 7d.—Oswestry: First, 1s 9d. Penzance: First, 1s 8d; Second, 1s 7d. Saffron Walden: First, 1s 7¾d; Second, 1s 6d. St. Ives (Hunts): First, 2s 1d; Second, 1s 11d. Salisbury: First, 1s 3½d; Second, 1s 2½d. Skipton: First, 2s 3d. Swindon: First, 1s 9d; Second, 1s 7d. Truro: First, 1s 6d. Welshpool: First, 1s 10d; Second, 1s 8d. *Carlisle: First, 2s 3d. *Derby: First, 2s 1d; Second, 2s 0d. *Ipswich: First, 2s 0d; Second, 1s 9d. *Lincoln: First, 2s 3d. *Shrewsbury: First, 2s 0d; Second, 1s 11d. *York: First, 2s 0d; Second, 1s 11d.

FOWLS.

Per lb.—Birmingham: First, 1s 4d; Second, 10d. Doncaster: First, †6s 0d; Second, †5s 6d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 5d. Llandilo: First, 1s 8d; Second, 1s 5d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First. 1s 5d. Welshpool: First, 1s 6d; Second, 1s 3d. *Derby: First, †6s 6d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 0d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d. *York: First, †6s 0d; Second, †5s 0d.

(Continued at Foot of Next Column).

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, March 3rd, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscription to "EGGS," 12s. 8d. per annum; 6s. 4d. for six months, 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick, Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by **FIRST POST ON FRIDAY MORNING** to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.

We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

DUCKS.

Per lb.—Birmingham: First, 1s 3d; Second, 1s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Llandilo: First, 1s 8d; Second, 1s 5d. Welshpool: First, 1s 5d; Second, 1s 2d. *Ipswich: First, 1s 4d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

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(PREPAID RATES.)

1d. per word—minimum charge, 1s. 0d.; 13 insertions at price of 12. Bold headlines inserted at an extra charge per insertion according to size as below:—

DAY-OLD CHICKS per line, extra 9d.
DAY-OLD CHICKS, " " 1s.
DAY-OLD CHICKS " " 1/6

The number of letters, punctuations and spaces between words should be totalled, when the following table will be of assistance:—

9d. size allows for Thirty-one to one line.
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1/6 size allows for Twenty-one to one line.

When the remittance does not cover the size selected, a smaller corresponding size type will be used.

Insertion constitutes acknowledgment of remittance in the case of pre-paid advertisements. For a series of 13 insertions or more, a receipt is forwarded.

N.B.—Advertisements, unless accompanied by correct amount, will not be inserted.

Advertisements must be distinctly marked with the Heading under which they are to appear.

Advertisements must be written on a separate sheet of paper, and, one side of the paper only.

Name and Address to be counted. In the case of a Box Number being used, the words, "Box." "Eggs," 94, Farncombe Street. London, S.E.16, to be counted as eight words, i.e., making a total extra charge of 1s. 8d. (1s. for Box; 8d. for address) per insertion.

Advertisements must reach this office
FIRST POST FRIDAYS
for insertion in the following Wednesday's issue Those received after this time will be inserted in the next issue.

PLEASE WRITE CLEARLY, and TO AVOID MISPRINTING OF STRAINS, NAMES AND ADDRESSES. THESE SHOULD BE WRITTEN IN PRINTED CHARACTERS.

Displayed Advertisements.

Ordinary Page, £8 15s. 6d.; Half Page, £4 7s. 9d.: Quarter Page, £2 4s. 0d.; One Column, £2 18s. 6d., Half Column, £1 9s. 3d. Quarter Column. 14s. 9d. One inch, 6s. 6d. Special Inside Pages, 25 per cent. on above rates. Cover and other Special Positions by arrangement. Discounts for Series. Full Scale of Advertising Rates on application.

Advertisements, addressed to Mr. S. H. BURLES, "EGGS," 94, FARNCOMBE STREET, LONDON, S.E.16, MUST REACH US BY FIRST POST FRIDAY MORNINGS, for insertion in following issue. Those received later will be inserted in the next issue

A DEPOSIT SYSTEM has been adopted for advertisements, and Advertisers are asked to make full use of same. When remitting direct to the Editor on deposit, the full amount of purchase money should be sent, and six penny stamps extra to cover cost of acknowledgment of same Cheques should be made payable to the Editor and sent direct to The Beeches, Rudgwick. Sussex.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. — R.I. Reds (first pens headed Cockerels direct Boucher), Runner and Khaki-Campbells. Eggs, Chicks, and Stock Birds. List free. Satisfaction insisted on.

Eggs for Hatching: R.I.R.; best strains; limited number; 6s. 6d., 15 eggs.—Nanoose Poultry Farm, Wool, Dorset.

Eggs for hatching. Rothschild's Light Sussex, Cam's White Wyandottes, Measures' Rhode Islands, Schimnel's Barnevelders, Hunter's Black Leghorns, Barron's White Leghorns; all direct strains; 6s. dozen; 45s., 100, by return, carriage paid. — Mrs. Porter, Dishley Grange, near Loughborough.

Eggs for hatching from good Utility Stock; various breeds; moderate prices. Please write for price list.—Arle Poultry Farm, Cheltenham.

P. B. Adams, East Franklyns Poultry Farm, Hayward's Heath. Sittings, 13s. 6d.; Special Pen, £1 1s. Rhode Island Red, Red Sussex, Light Sussex. Black Leghorns.

Sittings of Buff Rocks, also Light Sussex, from carefully selected birds bred for stamina, type and productiveness; 5s. for 15, unreplaced. I have never had disease on my farm.—Lea, Tenoaks, Ringwood.

BRITISH COLUMBIAN

White Wyandottes, imported direct; large eggs and stamina; winner several contests. Specialist 12 years. Mating List. —Read, Hutton Poultry Farm, East Grinstead, Sussex.

H. D. SIMMONDS, M.S.P.B.A.,
The Abbey, Thorpe-le-Soken, Essex, regrets he is unable to accept any further orders for White Wyandotte Eggs this season, owing to exceptional demand. Please book early for 1927.

TOM MARKS and SON,
Oakhill, Somerset, offers Light Sussex and R.I. Red Eggs from trap-nested stock; records from 175 to 256 large eggs. All stock mated are true to colour and type; 12s. 6d. for 15, £3 10s. per 100; clears replaced. Satisfaction guaranteed. See testimonials from satisfied customers in Year Book advertisement.

Capt. BARNES, KENILWORTH

Light Sussex, R.I.R., W Wyandottes, Black Leghorns, W. Leghorns. Eggs, 42s., 100; 23s., 50; 7s., 15. Chicks, prices on application.

COMPARE These RECORDS and PRICES

R.I.R. Pen includes records 251-269, 2¼oz.-2½oz. eggs. L. Sussex, records 219-254; B. Leghorn, records 238-246; W. Leghorn, records 263-285. Mated to tested cocks from high record hens; 9s. per sitting. Chicks double. Mating List free.—Capt. Barnes, Kenilworth (Breeding Station under Ministry of Agriculture).

WHITE WYANDOTTES.

The Sunnycroft strain have been bred on scientific lines, and trap-nested for fourteen generations. Eggs, 10s. and 7s. 6d. dozen.—Fred W. Wait, Sunnycroft, Burton Joyce, Notts.

HAYES POULTRY FARM,

Ashley Heath, Ringwood.
HATCHING EGGS.
7s. 6d. dozen.
1925 PULLETS.

White Wyandottes (Gunn - Wharton); March; 9s. 6d. each. Cash with order. — Capt. Roberts.

EGGS.

FOR SALE.

Send for a Sitting of my Reliable
5s. 9d. for 12. — Scott, Ortonwater
Peterborough.

Best White Leghorns Eggs; 6s. 6d.
no replacement. Cash with order,
riage paid. Name your nearest stati
A. Helliwell, Poultry Breeder, 4,
Parade, Mytholmroyd, Yorks.

Orders now being booked for Sitt
from my prize-winning Utility White
horns and White Wyandottes; 15 eggs
replacements; 10s., carriage paid. —
Brentwood, Marple.

White Leghorn Hatching Eggs,
selected Utility Stock; 7s. 0d., 15; 42s.,
—Blake, "Bozanti," Westbury, Wilts.

1,000ft. Altitude—yet Utility Cup
Gold Medal Winners (Registered
and records well over 200 for all breed
White Leghorn, Black Leghorn, R.I.
and Anconas. Built up from the
consistent laying competitors' blood
curable. Lists free.—Fentem, Chapel-
Frith.

Exchequer Leghorn Eggs, from
nested selected hens; mated Outhw
cockerel, bred from National Test win
pen; 7s. 6d. dozen.—John Mayes, S.P.
Paddock House, Holbeach.

Sitting Eggs. White Wyandotte; 10s
—12s. 6d. dozen. Also Light Sussex
other breeds.—Cartwright, Welland V
Poultry Farm, Seaton, Uppingham.

LIGHT SUSSEX. BLACK LEGHORN

My pens contain only L2 hens,
trap-nested pullet year records over
2oz. eggs; mated to exceptional cocke
from L2 parents; strain, Bostock Sn
price, 10s. 6d. per sitting.—Full pedigre
application to Buckingham Booth, Ch
ticlere, Bournemouth.

CROAD LANGSHANS.

My Pens won Gold Medal at Bentley
years running. Sittings, 12s. 6d.—Sim
Midgham, Reading.

LARGE BROWN EGGS.

Try my R.I.R.'s mated Baldwin
erels, also White Wyandottes and W
Leghorns; good laying strains; 7s.
dozen, carriage paid.—Flower, M.S.P.
Brockhills, Hordle, Hants.

WHITE WYANDOTTE EGGS

From hens with records 175-249 and
daughters, mated to males from 288,
249-egg hens; 7s 6d. for fifteen; no
placements. All eggs 2ozs or over.—J
Kirkland House, Blacon, Chester.

WHITE LEGHORN EGGS
FOR HATCHING.

None under 2ozs. 85 per cent. fert
guaranteed; Hanson, Bennet and
strains; mated to cocks and cock
direct from the Misses Ransford, Pens
to X. All breeding stock on virgin
Inspection invited; 6s. a sitting, 35s.
100; carriage paid.—Apply, Instow
try Farm, Langton Matravers, Dorset

Mr. R. FLETCHER HEARNSHA
Having purchased Mr. R. Kidd's e
stock of Celebrated Utility Rhode Is
Reds, can spare a limited number of
for incubation; 10s. 6d. dozen. Also W
Leghorns; Miss Ransford's direct; 10s.
dozen.—Foxhill, Burton Joyce, Notting

GOLD MEDAL STRAIN.

White Leghorns, winners of Nati
Laying Test Section 2, 1925. Booking
tings of Eggs; 15s. dozen.—Bingley,
sham Manor Farm, Cambridge.

EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH).

Registered at the G.P.O. as a Newspaper.
Vol. XIII. No. 10. Copyright.

Edited by TOM NEWMAN.
Price TWOPENCE.

Twelve Months	Post	Free	12/8
Six Months	"	"	6/4
Three Months	"	"	3/3

LIGHT IS LIFE!

PARTICULARLY to young growing stock. It will be seen from the illustration that the lighting is a cardinal point in **EXTENSIBLE UNIT BUILDINGS.** Pioneers of floor lighting. All-Purpose Houses (Patented) Save Chick Life.

A recent letter received from a client:—

James C. Price, M.S.P.B.A., & N.U.P.S.,
Hill Place, Blackboys, Sussex,

"Dear Mr. COLT, Jan. 7th, 1926.

Yours of 4th inst. to hand with details of new LX model and estimate for 60ft. houses . . . .

I have now given your brooders and laying houses a thorough test, so that this testimonial is not just the cock-crowing of an amateur pleased with a new toy, but it is based on a study of results, both as regards rearing and egg production, for the last three years.

The design of all your houses is just about perfect, and one can expect to rear, barring accidents, every healthy chick put in your brooders. As to your laying houses, a flock of 200 1925 White Wyandotte pullets in one of your houses have been laying well over 50 per cent. all winter, in spite of the fact that owing to deep mud they have had to be kept indoors.

I put this down to the construction of your houses, which allow full light and ventilation.

For the last three years practically all my birds have been brooded, reared and trapped in your All-Purpose houses, and the results have proved all you claim for them.

Two of my birds picked from a flock of pullets reared in your brooder houses have done well at the NATIONAL LAYING TEST:—

No. 1298, 'Slothful Sam,' laid 203 eggs in 48 weeks (196 grade I.).

No. 1307, 'Mercenary Mary,' laid 220 eggs in 48 weeks (215 grade I.).

Your latest model LX appears to be even better, if that be possible—so I shall look forward to a 75 per cent. egg yield next winter!!

Yours truly. JAMES C. PRICE."

"ALL PURPOSE" Models (Pat. and Regd.) will henceforth be made up in 1in. T. & G. board throughout as a standard—¾in. T. & G. to order only.

"ALL PURPOSE" Houses not being ridge ventilated ensure maintenance of suitable brooder temperature under hovers and in brooder compartment for reasons which we shall be glad to explain to applicants.

W. H. COLT, Ltd., Bush House, Aldwych, W.C., and BETHERSDEN, nr. Ashford, Kent.

Telephone Nos.: CITY 5112 and BETHERSDEN 6.

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The Stockyard
Mineral
Salt

Study the "Salca" proposition with an open mind. Know how it will help you on your farm! From the results it has already achieved "Salca" definitely

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"SALCA," 14/- cwt., 7/9 ½-cwt., 7lbs. 1/6.
"SALCA" X, 15/- cwt., 8/3 ½-cwt., 7lbs 1/7.

From your dealer, or Carriage Paid England & Wales, ½-cwt. up, 7lbs. 6d. extra.

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28, Brunswick St., Liverpool.
'Phone: Bank 5726 (2 lines).

Sole Distributing Agent for Northern Ireland
J. T. McMILLAN,
Poultry-keepers' Provider,
Crossgar, Co. Down.

Manufactured by—
CLIFFORD DE KUSEL,
10, STATION YARD,
PENGE EAST,
LONDON, S.E. 20.

and 'SALCA' X

For Poultry, Pigs, Cattle, etc.

UTILITY
W. LEGHORN
AND
W. WYANDOTTES

GET
YOUR LAYERS
from
FIELDING SMITH
LATE PUPIL AFTERWARDS MANAGER TO MR. TOM BARRON.
BAGSTONE P. FARM
VIA. WICKWAR P.O. GLOS.

AND
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WORDS
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CHICK
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The
'Eclipse'
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PERFECT DESIGN.
SCIENTIFIC VENTILATION.
SOUND MATERIALS.
FIRST-CLASS WORKMANSHIP.

No. 5 (10ft. x 12ft.) Laying House. The unit of the larger Laying Houses.

CANNOT BE TOO HIGHLY PRAISED.

OUR CUSTOMERS are most HAPPY TO RECOMMEND

HENCE THE INCREASING DEMAND.

There is no BETTER RECOMMENDATION than the TESTIMONY of our SATISFIED CUSTOMERS. The "ECLIPSE" Houses MERIT THIS. HAVE YOU SEEN ONE? If not write to:—

HERBERT W. MARTIN, PERIVALE POULTRY FARM & APPLIANCE WORKS,
EAST HARLING, NORFOLK.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, MARCH 10th, 1926.

Editorial.

THE MARKETING CONFERENCE.

We much regret to learn from official sources that the demand for the "Report on Egg Marketing in England and Wales," published by the Ministry of Agriculture and Fisheries, has been disappointing in the extreme.

The Report can be obtained from His Majesty's Stationery Office, Adastral House, Kingsway, London, W.C.2, or from any bookseller, price 1/6.

Those of us who had hoped that, at last, poultry-keepers had been aroused to the importance of the better marketing of their produce, must feel keen disappointment that their apathy or indifference, or, shall we say, failure to realise the importance of the Marketing Problem, has been so great that they do not deem it worth their while to send 1/6 for a Report which has been received by a chorus of praise from all who have read it, whether producer or distributor.

It has been suggested that this indifference on the part of the Home producer is to be accounted for because he so firmly believes that when the Marking of Imported Eggs, with the name of the country of their origin, becomes an accomplished fact, his difficulties will be at an end. Has it ever occurred to him that when the Bill becomes law the problem of Marketing, instead of being lessened, will become far more difficult? That then, for the first time, the English egg will be brought into competition with the imported, and will be compared by the consumer with the graded samples which are sent us from Denmark, Holland, France, and other countries, and that unless there is some attempt at organising the Marketing of the Home product, this marking of imported eggs, so far from being an unqualified blessing, may prove exactly the reverse?

Do all the poultry-keepers in this country realise that the foreigner has most thoroughly studied our markets, and is far better acquainted with the needs of the consumer than is the home producer, and that, moreover, he makes a greater effort to meet the demands of our market than we have ever attempted to do?

Speaking with some knowledge, we can say that the number of British producers who try to meet the demands of the home market, who endeavour in some small way to compete with the well-marketed foreign egg are comparatively few, and it is probable that even those who do so fail very completely to understand that their efforts are to a great extent rendered unavailable by the carelessness and dishonesty of others.

As Mr. Sidney Smith said at the Marketing Conference:—"Milk and water methods are of no avail." If the home-produced egg is to make a reputation for itself, then we must take steps to prevent the marketing of stale or bad eggs. Such steps as have been taken by the Ministry of Agriculture of Northern Ireland, which have proved of such immense benefit to producer and distributor alike.

Mr. Bennet Opie, one of the distributors, stated at the Conference that "five years ago the conditions in the Irish egg trade were very similar to those ruling in our own to-day, but possibly in an even worse degree. Irish eggs and the packing were a butt for abuse and ridicule. What was the result? The London market practically boycotted them at certain periods of the year. That does not apply to-day," and Mr. Smith was able to say that while in November, 1924, Irish eggs were 2/6 to 4/6 less than Danish, in 1925 the price was 4/6 to 7/- **more than** Danish.

What we hope will be fully realised is that if the organisation of our marketing is the wish of those who have a stake in the industry, then it can only be with their goodwill and assistance. We can do nothing by continually grumbling and growling. We must "set our house in order," and **act.**

It is a matter of great regret that at the Marketing Conference no paper was read by a British producer. The producer was made fully acquainted with the distributor's difficulties, but the distributor knows nothing of the difficulties of the producer. Mr. Bennet Opie remarked that a large number of English farmers resorted to holding back their eggs in order to get a little higher price. That may be true, and probably is true, but, on the other hand, it is no uncommon thing for the distributor to hold up eggs in order to get a higher price, and, speaking from personal knowledge, we know of one case where 2,000 eggs were held over for three weeks by a large distributor for a rising market. When Mr. Bennet Opie speaks of "the temptations to unscrupulous people to hold their eggs for a rising market," let him include the distributor.

He stated in his paper that he holds that it is as dishonest to do this as it would to steal an article from Harrods' stores, and adds, "But these people would go to church on Sunday morning and hear the phrase 'Miserable Sinners,' and would never attempt to apply that to themselves. Neither, we presume, would the distributor who mixes the foreign eggs with the English, who sells pickled eggs as 'New Laid,' etc." But all this is beside the question, our point is that it is as important for the distributor to understand the producer's difficulties as it is for the producer to understand those of the distributor.

Last week in a provincial town we saw imported new laid eggs, graded, all brown, clean and attractive-looking, 2/3 per dozen; side by side were "Guaranteed English New Laid Eggs," dirty, mixed, and most unattractive-looking, offered at 2/6. Comment is needless. One of the first steps taken in the organisation of the trade should be such legislation as would prevent eggs being displayed for sale in such a filthy condition as this, but we must deal very seriously with the producer who is so dishonest as to do as described by Mr. Bennet Opie and other distributors at the Conference. Mr. Opie said that "in July and August it is quite commonplace to find 30 to 40 eggs in a 50-dozen case, bad; four-fifths of the remainder stale, and showing signs of having been kept for weeks, and, in some cases, for months. This difficulty can be overcome only by State discipline in some form or other, similar to that which has been adopted by our foreign rivals."

On this point of State discipline, we think our readers will cordially agree with what Mr. Opie has said. It is useless to tinker with the question, a man who sells bad eggs should be punished in the same manner as the man who sells bad meat.

There is one point in Mr. Opie's paper which is of some interest—that is, his advocacy that eggs should be dealt with on a weight basis rather than that of numbers. He said, "If payments to the farmer were controlled on a weight basis I venture to predict that we should soon have poultry-keepers and farmers concentrating and experimenting with breeds that yield large eggs with advantage to themselves and to all concerned," and he continues, "Now the second requirement is that of actual quality." We feel that there is a very great argument in our suggestion that a paper stating the position of the producer should have been read at the Conference. If Mr. Opie had been acquainted with the difficulties of egg production he would not venture to make any such prediction as he has made, neither do we think he would have placed as the **second** requirement, **actual quality.** This, in our view, should be FIRST.

One other point on which the Distributors were most insistent was that there should be a better supply of eggs during the autumn and winter months, and they must learn to understand that they cannot get the size of egg **and** the numbers which they require at this period of the year. It is perfectly true that the breeder could breed for a larger egg, but not of the size demanded by the distributor, who takes as his standard for size the highest grade of imported eggs, and asks the British poultry-keeper to produce eggs them in larger quantities in the autumn and early winter months.

(Continued at Foot of Next Column).

Commercial Poultry Farming.

By T. W. TOOVEY.

Continued from page 147.

The number of birds that may be safely run to the acre is a question open to much controversy. This can be looked at from two aspects :—(1) How many birds may be run permanently to an acre of land, allowing half an acre to be in occupation and half resting?

The answer would be, I think, 200 on average land. The second way is to consider how much land would be necessary to support a given number of birds indefinitely for all purposes, including that required for the rearing of replacements and for allowing the ranges to have adequate rest periodically.

The quality and position of the land will, of course, make a considerable difference. We must insure that no more birds are kept than the grass will supply with green food.

I think that there has been, as I said previously, a general tendency to overstock, also I doubt if any of us are yet in a position to speak positively. Personally, I should put the number at 150 to the acre as a maximum on average land. A two-thousand laying hen farm would therefore require 14 acres. I made this point before. Fourteen acres for all purposes, laying hens, rearing and rest. The hens while in occupation would be running on an average at rather less than 250 to the acre. On this farm we propose to carry 2,000 on eleven acres. The land is peculiarly suited for carrying poultry, as it is very well drained and is the class of land that, if under cultivation, would require a coat of manure each spring if anything worth while in the way of crops was to be grown. I have tried some of it, and I know. A good deal of it is water-logged—that is, water during the winter season lies very close to the surface, and is continually passing away into the river running along the bottom of the farm, from one end to the other. The heavy rains wash the manure rapidly through the thin porous top soil into the water below. I am, therefore, under these circumstances, risking carrying 6,000 birds, or 180 to the acre, on 33 acres. This is apportioned as follows :

Three acres for chickens, 30 acres for layers. It means that for a single section of 2,000 birds eleven acres are allotted; one acre for chickens, and ten acres, divided up into three paddocks of 3.1/3 acres each, for the layers.

In fixing on the number of birds (we may, or should keep to the acre), it appears to me important not to lose sight of maintaining the herbage in the best condition. If too few are kept to the acre the grass grows too coarse and long, unless frequently mown. Poultry eat the fresh short shoots of grass, and probably in no other form can green food be given so beneficially. I do not think the value of good grazing can be over emphasised. I should, however, be very dubious about incurring the expense of the mowing and removal of the surplus grass several times a year, as would be necessary if, say, about 150 were run on an acre of good pasture while in occupation. The number necessary to keep the grass reasonably short will vary according to the condition of the turf. On old well-established pastures 250 to the acre will be about the number; on new pastures, as low a number as 150 might be adequate for a time; for the months of January, February, March, on well-stocked runs, the grass will require to be supplemented with mangels. Green food in some form or other—grass I think is the best—is a feature of such importance that it cannot be over-rated; also, I think that green food plucked in its living state by the birds themselves is superior to cut green food, given in a more artificial way.

In dealing with 14 acres for 2,000 birds, I would allot it as follows:—I would divide 12 acres into three paddocks of four acres each; in each paddock I would place ten houses capable of holding 100 birds each. Two of these paddocks would be in occupation at any given time, one paddock would rest from November to April, and then would be gradually occupied by the growing pullets. In the late autumn one paddock would again be cleared of all livestock, the land dressed with slag and the houses cleaned and disinfected, and all left vacant to receive the pullets of the succeeding year. Of the two acres left one small portion would be required for the coops and runs, quarter acre would be ample; the balance to be apportioned to four chicken houses, of a type to be described later. Notwithstanding all that has been said lately on housing, for the South of England, and in all sheltered localities, I believe there is nothing better than the lean-to type, long and narrow in proportion to its width. For commercial work I would "plump" for a house 30 ft. long, 14 ft. wide, 8 ft. high in front, and 5 ft. high at back, with the front boarded up 4 ft. from the floor level, the remainder of the front being wire netting, except that for 2 ft. 6 ins. from each end, the boards should go from top to bottom to check circulation of draughts. The whole surmounted with a hood 2 ft. 6 ins. wide. Such a house holds 100 layers comfortably. There are a number of these houses here. On the Herts Agricultural Institute these are the only laying houses in use. and on two other farms belonging to young friends of mine these are the only houses, with the exception, of course, of the chicken houses.

In my next article I will give an estimate of the cost, and specification of the material required at the prices as they prevail in this district. I will also, if the Editor will give me rope enough, before I finish the series, give an estimate of the complete equipment of a 2,000 bird economical poultry farm run on the lines I am endeavouring to portray. I want to make one or two remarks about the open-fronted lean-to type which has become the most universally used house in the south. It may readily be argued that, through the wide opening, rain may drive in, and that with high winds the hood alone will not stop it. This is so. It may, however, be stopped in one or two ways. In most localities gales and rain come almost entirely from one or two quarters, and if care is taken to avoid facing the houses in these directions the rain will sweep by harmlessly. Unfortunately, this obvious fact did not occur to me until a number of houses had been built facing too much to the south-west, whence most of our rain comes. The only remedy then is to fix a second hood 2 ft. below the top one. We have found a top hood 2 ft. 6 ins. wide supplemented by one below, 18 ins. wide, stopped the trouble; still, the second hood checks the most necessary light, and glass panels are placed in the boarded part to restore the ballance, but direct light is better than induced light. A very little difference in the aspect at which the house stands will make all the difference as to whether rain enters or not.

(To be Continued.)

THE LANCASHIRE UTILITY POULTRY SOCIETY'S EGG-LAYING TEST, 1925-26.

REPORT FOR FOURTH MONTH—11th Jan. 1926, to 7th Feb., 1926.

SUMMARY OF LEADING PENS.

Figures are Eggs and Points to date respectively:—

Large Breeders—Section 1.—Miss A. Paul, Blairgowrie, 663, 705; I. B. Gow, Cobham, 622, 667; W. Crabtree, Twiston, 592, 610.

Large Breeders—Section 2.—R. Rodwell, Nelson, 595, 595; F Snowden, Cowling, 595, 586; G. Mart, Euxton, 509, 516.

Large Breeders—Section 3.—C. Bates, Samlesbury, 693, 708; E. Yates, Penwortham, 698, 683; R. Rodwell, Nelson, 665, 673

Large Breeders—Section 4.—F. Harvey, Bretherton, 696, 709. R. Rodwell, Nelson, 701, 654; J. R. Welch, Bewdley, 619, 639

Small Breeders—Section 5.—F. B. Evers-Swindell, Ruthin, 344, 341; H. Seddon, Holmfirth, 313, 328; J. and W. Purdie, Lanark, 298, 303.

Small Breeders—Section 6.—R. W. Hully, Clifton, Manchester, 231, 249; Mrs. M. B. Clay, Long Preston, 213, 220; W. Ashcroft, Tarleton, 203, 215.

Small Breeders—Section 7.—Dr. J. E. Helm, Rossendale, 401, 394; J. and W. Purdie, Lanark, 366, 366; Mrs. M. B. Clay, Long Preston, 374, 359.

Small Breeders—Section 8.—R. Hodgkinson and Son, Culcheth, 327, 332; R. Rawcliffe, Goosnargh, 305, 304; Col. S. Sandbach, Abergele, 274, 294

Single Bird—Section 9—Light.—A. V. Wallis, Oxford, 71, 91; W Golden, Rugby, 88, 90; W. Rogers, Market Drayton, 81, 77.

Single Bird—Section 10—Heavy.—P. G. Espinasse, Oxon, 75, 83; Rainford, J., Penwortham, 72, 83; Black Lake P.F., Egham, 77, 76.

Juvenile Breeders—Section 11—Light.—R Collinson, Garstang, 242, 237; Miss W. Banks, Freckleton, 215, 212; J. Collinson, Garstang, 208, 205.

Juvenile Breeders—Section 12—Heavy.—R. Gabbott, Little Hoole, 343, 331; Miss E. Barron, Catforth, 333, 322; H. Sutton, Little Hoole, 341, 322.

A Day on a Poultry Farm

By Mrs. ATHOL CAPPER.

6.30.—The post arrives.

6.45.—We look at it while dressing. Observe that "Eggs" contains lurid articles on B.W.D. and Coccidiosis. Reading details of the symptoms of both these diseases we feel like the man in "Three Men in a Boat," who studied a book on diseases generally, and discovered that he had the lot, with the exception of housemaid's knee. Go out in a chastened mood to inspect the week-old chicks, and feel convinced that all of the dread symptoms could probably be discovered among them if we had time to make a thorough investigation.

8.0.—Breakfast. Look at the broadcasting programme, and are heartened to observe that a representative of the Ministry of Agriculture is going to talk this evening on "Useful Bacteria." Doubtless he will tell us of an antidote to the bacteria that are **not** useful to poultry farmers.

8.2.—A fumbling knock at the back door. (Every countryman is stricken with temporary blindness on encountering a bell, and resorts to his knuckles.) "Please can Mr. Capper lend Major ——— a broody hen?" This interruption (which is an almost daily occurrence) dealt with, we resume breakfast.

9.10.—The small maid, a recent importation, arrives breathlessly to announce that "a gentleman from London has come to see Mr. Capper." Experience having shown me the wisdom of investigating such claims before seeking my husband, I interview the said gentleman, and find he wants to sell me a patent carpet sweeper and mop combined.

10.0.—Offer the chicks a feed of chopped sprout tops, and am distinctly reassured by their appearance. There can't be much wrong with chicks which fall upon their food like ladies at a bargain counter during Sale Week in Kensington High Street. My spirits rise, only to fall again as I remember a sinister statement to the effect that chicks suffering from coccidiosis may, "when roused, eat and drink ravenously." They are doing that all right.

10.30.—A fellow poultry farmer arrives, to find me in the middle of making a pudding. I divest myself of an apron and surplus flour, and prepare to hunt for my husband over six acres of poultry farm. It is far worse than searching for the proverbial needle in the haystack, but we track him to earth at last in the incubator room, supplying a customer with day-old chicks. The customer is a maiden lady who is just starting fowls, and apparently has never seen chicks fresh from the egg, for she is terribly worried at their tired appearance. "They must be weak!" she says anxiously.

The poultry farmer friend has blown up his incubator and wants to know if we can incubate 200 eggs for him. To the best of my knowledge all our drawers are full, but I leave my husband to struggle with the situation, and return to my pudding.

11.15.—The week-old chicks are still eating and drinking ravenously.

12.0.—The mid-day post brings a sheaf of bills, a small cheque, and a letter from a lady who wants three dozen Light Sussex pullets at four weeks old—they **must** be **pullets,** she says.

1.45.—Lunch. This is not the normal time for this meal, which was ready at one, but it was the time when my husband arrived for it. He explains that during the past three hours the ordinary routine of the farm was interrupted by :—

An ex-soldier endeavouring to sell a map of Berkshire ;

A representative of an insurance company wanting to insure the farm and bungalow ;

A neighbour who wants him to choose a breeding pen for her this evening, as, in spite of years of keeping fowls, she cannot tell a layer from a "boiler";

A professional rat-catcher who was prepared to play the Pied Piper for the sum of £3 ;

A boy sent to borrow the ladder, which, having previously been borrowed by someone else, was nowhere to be found ; and

The baker's boy who let seven hens into the kitchen garden.

2.15.—A knock at the front door. A labourer wants to buy four hens for 3/- each. It is pointed out to him that the lowest price at which we could with honour sell him a hen would be 10/-. This seems to stagger him. "I don't want one of your fancy pedigree birds," he says ; "all I want is a hen to lay eggs." We remark that that is precisely what the pedigree implies—that the hen is bred to lay. The suggestion that any hen could lay as many as 200 eggs in a year leaves him frankly sceptical. "Must be forced," he says. "Anyways I could buy a hen in Reading Market for half-a-crown." We agree that this would doubtless be his best course, and return to finish our lunch.

4.0—Take another look at the chicks. A Rugby football match appears to be in progress, between the Bresse and the Rhode Islands, an unfortunate worm acting as football. The Rhodes may score in solid scrummaging, but the Bresse are certainly much faster, and among them are certain excellent "wingers." Some of their "spoiling" and "breaks-away" could give points to our International team.

4.30.—Tea. Consult "Eggs" once more, and discover that it is only **when roused** that the chick affected with coccidiosis eats and drinks ravenously. That is all right then. Ours require no rousing.

7.30.—Select a breeding pen for our neighbour.

8.30.—We sit down to supper. One of Major ———s' retainers selects this moment to return the broody hen, which is alleged to be unwilling to sit. He enquires where he shall put her? As the creature is held in the speaker's arms, we can hardly tell him to put her down anywhere until we have finished our meal, and supper is therefore postponed until the hen has been restored to her home.

9.10.—The Ministry of Agriculture's speaker over the wireless not very helpful. His main interest is crops.

10.0.—Oil the incubator, and take a last look at the brooder lamps.

10.30—11.—Do accounts and enter up trap-nest records.

11.0.—The end of a perfect—well, the end of a **typical** day, anyhow. At least the fowls have been fed and watered—the latter was done at 12.30, all earlier attempts having failed. According to schedule, this is the day for cleaning out the fowl houses, but, curiously enough, there has been no time for this. Let us hope it will **snow** to-morrow. Nothing less will keep interrupters away.

NORTHERN UTILITY POULTRY SOCIETY.

LAYING COMPETITION, 1925-26.

Third Report, December 27th, 1925, to January 23rd, 1926.

Very wet but open weather continued until the 12th of January, when we turned again to frost and snow; the frost being more severe than at any time during the winter, snow falling on several days. Milder conditions returned towards the end of the month, with another heavy fall of snow on the 22nd, this being cleared during the day. Six days have been fine, and wind has reached gale force on many days.

The health of the flock has been excellent, not one competitor requiring medical treatment, and, as a consequence, the return of eggs has been very good, equal in fact to summer laying, and some fine records are likely for the 16 weeks cup. No broodiness has occurred, but there a few fresh cases of moulting. Nine birds have yet to lay their first egg.

DUCK SECTION.

These competitors are also enjoying superb health, but so far the returns remain very poor, although a little better than previously.

EGG PRODUCTION OF LEADING PENS.

Figures are total Eggs and Points to date respectively.

Section No. 1. Championship.—Leslie Williams (W.W.), 393, 393; Messrs. Longworth Bros. (W.L.), 322, 322.

Section 2. White Leghorns.—Robert H. Fryers, 261, 261; F. C. Tomlinson, 209, 209; Richard Harrison, 194, 194; William Dugdale, 190, 190.

Section No. 3. White Wyandottes.—Bolton and Gardner, 265, 265; R. H. Aspden, 252, 252; Arthur White, 238, 238; Mrs. J. H. Hill, 224, 224.

Section No. 4. Any Other Variety (Non-Sitting).—K. A. Crawford (W. La B.), 181, 181; Arthur White (B.L.), 136, 136; Owen Rawlinson (B.L.), 134, 134; Robert A. Fawsett (B.L.), 128, 128.

Section No 5. Any Other Variety (Sitting).—E. A. Tingle and Son (R.I.R.), 277, 277; Gettern Model Poultry Farm (B.R.), 229. 229; Gilbert A. Leonard (B.R.), 219, 219; Harold Turner (R.I.R.), 203, 203.

(Continued at Foot of Next Column.)

Some Fruit-Growing Notes

to help Poultry-Keepers.

By F. W. WHEELER, F.R.H.S.

SPRAYING.—*Continued.*

We have seen a good deal in the papers lately about imported apples being poisoned through the trees having been sprayed with a solution containing arsenate of lead, and there seems a diversity of opinion as to how much danger there really is in eating them, or the number that one person would have to consume before sufficient arsenic would get into the system to be harmful.

So far I have not read of a single case being brought against apples from British Columbia, Australia, or New Zealand, or our home-grown ones, although we know that various arsenate of lead spraying solutions are extensively used in the orchards of England and Dominions. The general explanation respecting the affected imported apples is that the spraying operations were carried out too late after the fruit had formed, but I cannot help thinking that the scare seems like the proverbial "storm in a tea-cup," for it has been estimated that at least 900,000,000 (nine hundred millions) barrels of American apples have been consumed in the past without any known illness resulting. In many cases apples suspected of arsenication were submitted to expert analysis, and the arsenic found on an apple was "only one-eight part of a minimum medicinal dose, and the danger to health negligible."

When there is a bad outbreak of caterpillars in a district the chemical solution in question has been found a very effective cure. For mild outbreaks I have used "Katakilla," and found it sufficiently effective. The arsenate of lead is harmful to bees if used when the trees are in flower, and our nectar gathering friends are at work, but it has been repeatedly pointed out that arsenate of lead sprays are more effective if used just before blossoms open, and after the petals fall, and no harm comes to the bees.

General spraying is possibly in full swing, but I fear the winter caustic washing will in many cases this year have to be dropped out, as January and February have been so wet that it was not possible to do the work, and already we can see a movement in the buds on trees and bushes.

Section No. 6. Small Breeders.—Mrs. Clara Egar (W.L.), 144, 144.

Section No. 7. Cross-Breds.—James Stuart (B.L. x R.I.R.), 126, 126.

Section No. 8. Two Birds.—Mrs. E. McKeown (W.W.), 91, 91; Eustace A. Wilkinson (W.W.), 72, 72; Misses Leason (W.W.), 66, 66; Henry Purves (W.W.), 65, 65.

Section No. 9. Single Bird.—R. A. and A. M. Johnson (W.W.), 55, 55; Crossgar Pedigree U.P. Farm (R.I.R.), 53, 53; Miss R. K. Tallis (W.W.), 39, 39; Gettern Model Poultry Farm (B.R.), 60, 60.

Section 10. Local Section.—Ernest Jackson (W.W.), 165, 165; Richard Harrison (W.L.), 155, 155; Joseph Trickett (WL.), 153, 153.

Section No. 11. Ducks.—G. H. H. Simmons (K.-C.), 61, 61; Wilson Beattie (K.-C.), 56, 56; E. W. Putman (K.-C.), 47, 47; R. A. and A. M. Johnson (W.R.), 38, 38.

Section 12. Single Ducks.—G. H. H. Simmons (K.-C.), 52, 52; R. A. and A. M. Johnson (K.-C.), 26, 26; Mr. and Miss Streatfield (K.-C.), 18, 18; Capt. A. St. G. Maxwell (K.-C.), 13, 13.

Fortunately, if growth is too sudden, we can fall back on the lime sulphur washes, which, although not so effective as the winter washes, in removing bad cases of moss and lichen from neglected trees, it will act as a considerable check to the trouble, and can be used with safety when trees are breaking into new growth, and when the apple blossom buds are in an advanced stage. Lime sulphur is, of course, used extensively in the summer, but at a reduced strength). This wash also helps to control scab, but I like in these cases to follow it up with a copper sulphate mixture such as "Bordeaux" applied in the summer.

A great deal of attention has of recent years been given to the use of tar oil sprays, and judging from reports of the experiments carried out at our Research Stations, and also the testimony of many of our big fruit growers, it is coming into great favour, especially as a destroyer of the eggs of insects, and this checking of troubles at its earliest stage of existence.

Some of the tar distillate washes that manufacturers are now putting on the market lay claim to being a combined spray that will not only destroy both the eggs and insect pests, but are also so arranged as to control various fungoid growths. These can be used on trees that have even started into growth, whereas many of the winter washes (and some of the tar oil preparations) must be applied before the buds show signs of new growth.

Many still prefer to use a special spray for a particular trouble requiring attention, especially if a bad outbreak, but with the new experiments that are continually being carried out, great advance is being made each year, and the tar oil washes mark the greatest advance in spraying material. If we can get a really reliable combined spray for use against all insect and fungoid pests it will be a great saving both of material and labour, but a combined spray that will leave no doubt as regards the destruction of eggs found on trees during the winter months will be a most valuable advance.

Whatever the material we may use, it is imperative that we thoroughly wet the trees, and the more powerful our spraying pump the better.

Be on the look-out for signs of any outbreak, and spray in good time, whether it is caterpillar or aphis attacking your trees. The various pests seem to come round in cycles, and some years we are quite clear of some. Those whose orchards are receiving good all-round attention need not fear serious outbreaks. There is no doubt that the running of poultry under the trees is a considerable help in keeping under insect pests, and for that reason it is being more and more widely taken up by large fruit growers.

I want these notes to supplement the information on spraying given in the shilling hand-book (S.P.B.A.), and hope to continue with more remarks on this subject next time.

Correspondence.

THE GREAT EGG ILLUSION.

To the Editor of "Eggs."

Dear Sir,—I regret that your correspondent, "Producer," in your issue of the 24th February should not have referred to the Ministry of Agriculture's Report prior to responding to the article in the "Westminster Gazette," as he might thereby have considerably strengthened his case in favour of the compulsory marking of imported eggs.

For instance, a careful perusal of Chapter X. would have disclosed that what is said in the report about the probable necessity of employing a large number of inspectors comes under the heading of: "(I.) National Scheme for Marking **Home Produce,"** and **not** under "(II.) The Compulsory marking of **Imports."**

What the Ministry of Agriculture does say under the above heading (II.) is that "Local authorities may, admittedly, find that the legislation adds considerably to the labours of their staff, but it would at least be possible to enforce it to an extent that is not possible under the existing Sale of Food Order. Moreover, the mere existence of legislation would act as a deterrant to any deliberate evasion of the law."

The report also advises, regarding certain objections, including the statement in some quarters that the cost of stamping would be prohibitive (involving possibly the diversion of the cheaper imports to other countries), that "too much attention need not be paid to such statement, even on the basis of the **highest** estimates (7/- to 10/- per case of 1,440 eggs), nor should the work of inspection at the ports on arrival lead to any serious hold-up."

To what extent (if any) civil servants can bear any additional burdens is not, of course, for us to decide, and doubtless their former comparison with the Fountains in Trafalgar Square (which used to play from ten to four) is no longer applicable. But the suggestion that the Marking Scheme—so far as imports are concerned—would increase the number of officials, is quite a different matter, and does not emanate from the Ministry of Agriculture.

To conclude with a useful, though probably less palatable statement, culled from the above report:—"The agitation in favour of compulsory marking is based on the assumption that when once the identity of the foreign egg is declared, the British egg will step into its Kingdom." But, as they say in America, "Is Zat so?"

If foreign eggs were marked, the sentimental value of the "English New Laid" would remain, but "the trade value would depend entirely on the home producer." He would have to realise that "there are certain countries well able to compete on level terms with him, and that he would only be able to capture and hold his own market by raising the quality standard of the produce he sells."

If the home producer will realise this, and act upon it in time, the ultimate effect of the proposed legislation may well be beneficial to home production and therefore to the country generally.

Yours faithfully,
HUGH M. BAKER.

THE YORKSHIRE FEDERATION LAYING TEST, LTD.

Report for the Fourth Month, 12th January, 1926, to 8th February, 1926.

Frosts, rain, heavy fogs and cold east winds have prevailed during the month. It was expected that the sudden changes of weather, experienced during the third month, might throw some birds into moult. This expectation, unfortunately, has been realised, and the bird in several pens, which, prior to the sudden changes, were in full lay are now passing through a partial moult. However, 75 per cent. of these birds, although moulting, are continuing to lay.

Despite the very adverse conditions there has been a steady increase in the egg yield. The size of egg, also, has greatly increased. The weekly returns of eggs laid are:—13th week: 2,115; 14th week: 2,006; 15th week: 2,114; and 16th week: 2,248. The total number of eggs laid during the month is 8,483. This is 770 eggs more than was laid during the third month, and is an increase of 9.9 per cent. The greatest number of eggs collected in one day was 350, and the smallest was 266.

Five pullets have been broody, and have been confined to the coops for an average period of four days.

The health of the flock is excellent.

G. THORNEYCROFT, M.C., Captain, Manager.

For the "Daily Despatch" Gold Challenge Cup for the pen in Classes A. or B., which produces the highest average per bird.—Sutton and Sons, Preston (W.W.), average value per bird, £1 0s. 11d.; J. H. and W. Brayshaw, Cross Road (W.W.), 18s. 2d.; R. Rodwell, Nelson (B.L.), 17s. 7d.

The "Miss Delaney" Silver Challenge Cup for the best bird in the Test, and the "Daily Dispatch" prizes of 12 guineas, seven guineas, and five guineas for the three best birds in the test.—Dr. J. E. Helm, Waterfoot, Lancs (W.W.), 88 eggs; G. H. Rayner, Grantham (W.W.), 77 eggs; Dr. J. E. Helm, Waterfoot, Lancs, (W.W.), 86.

The "Mrs. Clay" Silver Challenge Cup for Class A., Section 1, White Wyandottes.— A. Snowden, Pool, 593 eggs; Dr. J. E. Helm, Waterfoot, Lancs., 593; R. Rodwell, Nelson, 435.

The "Tom Barron" Silver Challenge Cup for Class A., Section 2, White Leghorns.—R. Rodwell, Nelson, 527 eggs; Tom Barron, Catforth, 443; Lord Dewar, East Grinstead, 450.

The "Sir Donald Horsfall" Silver Challenge Cup for Class A., Section 3, A.O.V. Light or Heavy.—S. Street-Porter, Ely, Cambs. (An.), 434 eggs; Tom Barron, Catforth (R.I.R.), 360; W. M. Golden, Leire, Rugby (R.I.R.), 343.

The "Frank Snowden" Silver Challenge Cup for Class B. Section, 4, White Leghorns.—R.H.Fryers, Bradley, Keighley, 353 eggs; G. W. Sutcliffe, Hebden Bridge, 335; W. R. Auty, Sandy, Beds., 318.

The "Allen Bros." Silver Challenge Cup for Class B., Section 5, Black Leghorns.—R. Rodwell, Nelson, 397 eggs; W. Sharp. Bell Busk, 242; the late Col. Spence, Kirk Levington, 208.

The "Jack Wrennall" Silver Challenge Cup for Class B, Section 6, White Wyandottes.—Sutton and Sons, Preston, 520 eggs; J. H. and W. Brayshaw, Cross Roads, 434; J. N. Readman, Howden, 371.

The "Fred Simpson" Silver Challenge Cup for Class B., Section 7, Rhode Island Reds.—Miss Maddison, Dane Hill, 338 eggs; Miss D. E. Kitchin, Easton, 311; R. Rodwell, Nelson, 315.

The "Will Hamnett" Silver Challenge Cup for Class B., Section 8, A.O.V., Light or Heavy.—S. Wigglesworth, Farsley (Bf. Rks.), 349 eggs; J. W. Towler, Farsley (Bf. Rks.), 371; A. White, Malpas (L.S.), 343.

The "Yorkshire Federation" Silver Challenge Cup for Class C., Section 9, Any Variety, Light.—S. Hartley, Haworth (W.L.), 72; Mrs Hawkesworth, Pool (W.L.), 65; C. Sturdy, Harewood (B.L.), 58.

The "Percy Wainwright" Silver Challenge Cup for Class C., Section 10, Any Variety, Heavy.—Miss Mawson, Adel (Bf. Rk.), 85 eggs; Mrs. Hawksworth, Pool (W.W.), 92; S. Hartley, Haworth (W.W.), 93.

The "G. R. Poole" Silver Challenge Cup for the best pen any Colour Orpingtons, Australorps or Rocks.—S. Wigglesworth, Farsley (Bf. Rks.), 349 eggs; J. W. Towler, Farsley (Bf. Rks.), 371.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to **Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.**

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

E. K. (Brockenhurst) wishes to know which is the best fowl to keep for egg production, the White Leghorn or White Wyandotte. At present he is keeping all Wyandottes, only they are apt to go broody in the Spring. He intends to run White Leghorns only, but he is told that Leghorn chicks are more difficult to rear than Wyandotte chicks, and his land is rather damp, so he expects that would be one trouble. Another is the young cockerels. He encloses a sample of fine middlings, and wishes to know if they are pure; he is paying 11s. per cwt. for them.—As far as egg production is concerned, the Wyandotte is as good a layer as the Leghorn, although the eggs are somewhat smaller. It would produce more in the winter, and is a better table fowl. Broodiness in a good egg-producing strain of Wyandottes is not a serious handicap. It is incorrect to say that the Leghorn chicks are more difficult to rear than Wyandottes. As balancing the waste in Leghorn cockerels, there is the early maturity of the Leghorn and the non-broodiness. Still, I must give my personal opinion, and that is, that the Wyandotte is a more profitable breed. I can detect no signs of adulteration in the sample of middlings sent, but at 11s. I think they are rather dear.

L. E. M. (Callam) wishes me to give him full particulars of the Wellingham Experiments, which were given in answer to "N. J.," (Whitwood). These were all published in different numbers of "Eggs" last year, and also in the S.P.B.A. Register. The mixture given was the only feed the birds received in addition to the grain. In answer to "L. E. M.'s" second question, ducks can be penned for breeding purposes. It is not necessary that they should have access to running water.

G. N. O. (Stourbridge) wishes advice about his White Leghorns that have gone out of production; their combs have gone hard and shrivelled, just like the bird illustrated in the "Handling and Observation" Charts as a typical non-producer. These birds have laid well during the winter months under lights, and he has already culled ten from a flock of 150. Do I advise getting rid of these, or will they come back into lay? If so, will it pay to keep same? The probability is that the writer has been rather overdoing the light. The birds will come back into production if they are properly fed and looked after. The comb has gone hard and shrivelled because, when a bird is in production, the ovary is very plentifully supplied with blood for the formation of ova, and the comb is the secondary sexual organ, and responds to the ovary. I expect these birds have been given too much light. My correspondent should keep them. They will come through all right, and it will pay him to keep them. In answer to his further question, I do not think it is lack of stamina, but simply that they have been forced.

I. W. (Uxbridge) has built a house, 20ft. x 20ft., in which he hopes to keep 100 Houdan pullets. He wishes to know whether they are suitable birds for keeping intensively. Also he has a fine oak copse near by, in which there is a about three inches of fine leafy mould; would this be suitable for an intensive house if collected when dry?—In reply to his questions, I have never kept Houdans intensively, neither do I know anyone who has done so, but there seems no good reason why they should not succeed as well as any other breed. Presumably my correspondent has been able to get Houdans of some Utility type as against the exhibition type, where the crest was bred to such an exaggerated size. Houdans are fairly good layers, and a most excellent table bird. The leafy mould from the oak copse would be excellent for litter with a little straw on top.

A. M. B. (Salisbury) asks whether chicks which have been infected with Coccidiosis are worth rearing. Most emphatically—No. In fact they are a menace to the flock. These are but survivors, and I would rather term them that than as "recovered." After a chick is six weeks old it may survive an attack of the parasite; in fact, the mortality from Coccidiosis, after that age, is comparatively small, but those chicks which survive are not only unprofitable, but are a serious menace to the rest of the flock. They are carriers, and spread the disease through the excreta, and while they are allowed to pollute the ground, it is hopeless to attempt to stamp it out. The most drastic means must be employed when attempting to stamp out a disease like Coccidiosis.

S. E. G. (Carleton) sends a sample of bone flour at 14s. per cwt. This is quite satisfactory. The maize germ meal is also very good value at the money (9s. 3d. per cwt.).

A. C. (Blyth) writes that she has eleven White Leghorn pullets which have laid exceedingly well, but some of the eggs had spots of blood in the yolk, and this has worried her exceedingly, as she is getting two or three eggs a day with these blood spots in them. Her feeding is two handfuls of meat meal, two bran, 4lbs. boxings, and boiled turnip skins (no spice). To-day she has begun my dry mash formula. She has also 18 Black Australorps, which are fed on the same mash, and their eggs are all right. She wonders whether she is giving them too many worms.— As I have explained before blood spots are caused in the following way:—When a hen is laying heavily, the ovary is plentifully supplied with blood to promote the rapid formation of yolks. When a yolk sac ruptures to release a yolk, some blood may escape from a congested blood vessel in the sac. The blood passes into the oviduct with the yolk, where it become surrounded by albumen and incorporated in the egg. Sometimes the blood spot is in the white or albumen. In that case it is due to a ruptured blood vessel in the oviduct. There is very little one can do to stop this trouble. The feeding does not materially affect it, except in the case possibly of very highly productive hens. As a rule, these matters right themselves. There is nothing which can be done to stop it, but avoid stimulating feeding, and a mild dose of Epsom salts might help in the matter. The worms would not materially affect it, but it would be advisable to reduce the percentage of meat meal.

POST-MORTEMS.

A. McC.—The post-mortem examination of the hen showed that the cause was internal haemorrhage from rupture of the liver, which was very highly congested, and this with other lesions presented by the kidneys and spleen was very suggestive of septicaemia haemorrhagica. There is no treatment for this disease, but spread should be prevented by a thorough clean up and disinfection of the premises and equipment, and the prompt isolation of any bird that appears to be ailing. It would be wise to isolate the birds in the flock which were associated with this bird, and so to dispose of their droppings that others cannot gain access to them.

J. H. C. The cause in the case of the Indian Game Cockerel was gout, accelerated by extensive blistering of the thighs and breast, and absorption of the turpentine. The kidneys, in addition to being blocked with urates, were in a state of acute inflammation, and the heart sac (pericardium) was loaded with the deposits characteristic of the disease.

E. L. F. The post-mortem examination of the chicks showed that they were affected with Aspergillosis of the lungs and air sacs. This disease is caused by a fungus, the aspergillus fumigatus, which attacks and grows upon damp materials of all kinds, producing mould and forming spores by which it multiplies. It would not be safe to run another hatch in the same house without previously thoroughly disinfecting it, and destroying all litter that these birds have used; and no litter or food that has the slightest trace of must or mould should under any circumstances whatever be used for poultry. There is no treatment, although favourable reports have been received of the addition of 40 grains of citrate of iron and quinine to every gallon of the drinking water for a fortnight.

Capt. F. W. P. R. The post-mortem examination of the hen showed that she was affected with a muco-enteritis, and was heavily infested with round worms. Steep 1lb. of tobacco stems and waste, or shag if the other is not obtainable, in enough water to keep it covered, for two hours, and then mix the whole in a small mash, and give to the birds when fasting. Some hours afterwards give another mash containing 11 ounces of Epsom salts; these are the quantities for 100 birds. The excreta should be collected and burned, and the floors of the house disinfected to destroy worm eggs and embryos. (2) Yes, I should put all the chicks on the catechu water, but although I recognise the difficulty of disinfection it would be courting trouble in the way of rickets and mal-nutrition to keep them shut up for so long.

C. B. C. In my opinion the trouble lay in the incubation, and not with the eggs, lack of moisture being indicated by the toughened membranes which would make it almost impossible for the chicks to break through, and I should also think that the temperature had been too high. The chicks were weakly, and this could also be attributed to the above causes, as either would affect the vitality even if they succeeded in escaping from the shell.

J. N. H. W. The post-mortem examination of the chicks showed that they were affected with rickets, and the digestive breakdown so often a complication of that disease. The treatment is comparatively simple, and usually effective, and consists of the addition of two per cent. cod liver oil to the mash, and green food and fish meal to the ration, and permitting and encouraging exercise in the open air and unfiltered daylight.

HERTS COUNTY EGG-LAYING TRIALS.

REPORT FOR FOURTH PERIOD—Jan. 7th to Feb. 3rd. 1926.

Figures are Eggs and Points respectively:—

SECTION 1.—Open to any Breeder in the County.

Division A—Any Light Breed (6 Pullets).—Mrs. E. Charles (W.L.), 396, 3,618; Mr. Hedley Morgan (W.L.), 396, 3,574; The Hoo Poultry Farm (W.L.), 265, 2,643.

Division B—Any Heavy Breed (6 Pullets).—Dr. Douglass (W.W.), 440, 4,246; Mr. E. Holloway (R.I.R.), 342, 3,304; Miss Harrison Bell (B.Rk.), 340, 3,227.

SECTION 2.—Open to Poultry-keepers whose total laying stock does not exceed 150 head.

Division A—Any Light Breed (3 Pullets).—Dr. Douglass (W.L.), 186, 1,795; Mr. J. Burnett (B.L.), 89, 781.

Division B—Any Heavy Breed (3 Pullets).—Mrs. Walrond (W.W.), 187, 1,730; Mr. W. Lloyd (W.W.), 181, 1,724.

Modern Poultry Feeding

By TOM NEWMAN.

LEG WEAKNESS AND COD LIVER OIL.

Many readers have written to me to know whether Cod Liver Oil is procurable in a powdered form, as they appear to think that its use in the dry mash presents an insuperable difficulty.

I can only say that so far as I am aware chemists have not yet discovered a means of reducing oil to powder. What science may accomplish in the near future I will not venture to prophesy.

To overcome the difficulty of incorporating Cod Liver Oil in the dry mash, the best method is to mix two teaspoonfuls with a small quantity of bran and incorporate this in 1 lb. of mash. That is the dose, and it should not be exceeded. Some of my readers appear to believe that you cannot have too much of a good thing, and consequently they overdo it, with the result that serious digestive disturbance occurs, and there is a high mortality. There also appears to be a failure to realise that Cod Liver Oil in itself will not prevent leg weakness if the conditions are such as will be favourable to its occurrence. Badly-lighted brooders, and brooder houses, and bad ventilation will induce this trouble which **cannot** be overcome by the administration of any food or any drug. Fresh air is absolutely necessary, as is as much sunlight as our climatic conditions will allow us to supply.

One complaint reaches me this morning where the trouble has undoubtedly arisen through a deficiency in the diet. The chicks have been fed on a dry chick feed, consisting of broken wheat, maize, cut groats, hemp seed, canary seed, millet, dari and broken rice. Of course, such a mixture is very deficient in the calcium salts, consequently there was nothing to assist in the formation of bone, and there was a very heavy mortality.

S. P. B. A.

Food Purchase Scheme.

IMPORTANT ANNOUNCEMENT.

THE COUNCIL OF THE S.P.B.A. HAS PLEASURE IN ANNOUNCING THAT ARRANGEMENTS HAVE NOW BEEN MADE WHEREBY MEMBERS CAN BE SUPPLIED WITH FOODSTUFFS AND THE S.P.B.A. MASHES FROM ALL THE VARIOUS DEPOTS, IN LOTS OF 1 CWT. F.O.R., BAGS FREE.

MEMBERS CAN BE SUPPLIED AS FROM THIS DATE.

FULLER PARTICULARS WILL BE FOUND IN ANOTHER PART OF THIS ISSUE.

TOM NEWMAN,
SECRETARY.

One correspondent writes to ask, "When dried milk is supplied, is it necessary to give fresh green food?" I can only answer this question by saying that whenever fresh green food is procurable it should be given, and great effort should always be made to provide it. Although we have succeeded in rearing chicks without green food, and healthy chicks too, which have grown to vigorous maturity, it is not to be recommended.

In answer to many readers who ask for a dry chick mash in which there is no ingredient which will be dfficult for them to obtain, I give the following which will give most excellent results. This can be given from six days until the chicks are eight weeks :—

21 lbs. Bran.
10 lbs. Alfalfa Meal.
35 lbs. Middlings.
21 lbs. Sussex Ground Oats.
14 lbs. Maize Meal.
8 lbs. Fish Meal, or 10 lbs. Dried Ski[illegible] [illegible]med or Buttermilk.

This should be always before the chicks.

As a Chick Grain Feed the following is advisable : —

42 lbs. Finely-Cut Wheat.
35 lbs. Finely-kibbled Maize.
28 lbs. Split Groats.

Many of our readers desire to use canary seed. I do not advise its use, but prejudices die hard, and to those who care to include it 7 lbs. can be added to this mixture.

THE NECK MOULT AND TROUGH FEEDING.

Mr. Knight, referring to the article which appeared in our issue of February 24th, on the subject of the heavy feeding of grain and the neck moult, writes :—

> "My experience entirely coincides with your article. I am sending you the records of some of my early Wyandottes and Leghorns. The first hatch was on February 7th ; Leghorns later. We have had practically no neck moult either in the Wyandottes or Leghorns, but about one or two P.C. have moulted entirely. This is amongst 350 Wyandottes and 590 Leghorns. Lights are in use about one half hour between 8 and 9 p.m."

Mrs. Knight sent me some records of her Wyandotte hens which began to lay in July. One of these went broody in August, but this bird has a record to the end of February of 139 eggs, laying in October, November and December, 21, 25 and 24 eggs respectively.

Another record is 146; in October, November and December she laid 60 eggs.

The next is an even better record, and her figures are interesting; they are: 10 July, 25 August, 22 September, 24 October, 26 November, 27 December, 25 January, and February 23, making a total of 182, whilst hens Nos. 6 and 7 have put up records of the following:—

No. 6: July 8, August 26, September 23, October 22, November 23, December 21, January 20, and February 17.

No. 7: July 10, August 29, September 20, October 26, November 27, December 28, January 24, and February 20.

The records of the Leghorns are not quite so good, laying commenced in August. One hen went broody in November, and went through a complete moult in December, but in spite of that she had laid 80 eggs before the end of November.

A wonderful record was that of No. 5, who commenced by laying 12 eggs in August, 25 September, 26 October, 28 November, 24 December, 25 January, and 21 February.

It will be noted that Mrs. Knight only used the lights between eight and nine p.m., whereas Mr. Brown had a totally different experience, and who extended the day to twelve hours, and his birds moulted. I think my suggestion that he overdid the lighting and defeated the object he had in view is correct.

We must not lose sight of the real point and that the object in lighting is to simply allow the birds to consume sufficient food. There is no idea of extending the days, and when the birds have obtained the necessary quantity of food the lights should be dimmed at once.

This view was confirmed by Mr. Johnson in his lecture at Gloucester. We hardly sufficiently realise the economic importance which will result when we fully understand the value of this heavy feeding at night. Our experiments have not yet taken us far enough, but the reports so far, almost without exception, speak very favourably of the trough feeding of grain which I suggested two years ago. It has, to a great extent, prevented the neck moult, and has certainly resulted in increased production during the winter months.

The Goat-Keeper's Diary.

II.

By **MRS. GEORGE EPPS.**

15th March.

Foot and Mouth Disease regulations concern the goat-keeper, and a good many kids will be arriving late on this account. By this time, however, there is a fair number of kids about. I have been asked if it is possible to rear kids intensively. The articles that have recently appeared in "Eggs" on this subject as regards fowls apply roughly to the rearing of kids intensively, and I personally hold the same views as regards kids as does Mr. Newman in the case of poultry. If there is a fair-sized yard for the kids to play in, and a good variety of fresh green stuff is provided, there is no sound argument against the intensive plan, and I am sure it is better to rear in this way than to run the kids over a meadow that is at all foul, and infinitely better than to tether the poor little creatures out. Kids should not be restricted in any way in their movements. When they are put into a yard they greatly enjoy leaping over boxes and all sorts of obstacles upon which they can get a precarious foothold, and if these are provided, in addition to a rack for their green stuff and hay, they will make good progress. As with all live stock, young and old should not be put together, for an old goat has but little toleration for the giddy pranks of another goat's child, and another goat's child has no consideration for her grown-up aunt who wishes to lie quietly down to chew the cud in preparation for the evening's milking.

Kids should receive very little corn; a daily handful of crushed oats in a little bran is all they require up to about six months, and none while they are taking their mother's milk, but there should be no limit to the sound hay or green stuff that they have.

ADULT STOCK.—For three days after the goat has kidded, feed very sparingly, and give plenty of water with the chill off it. If the intention is to rear a kid, use much discretion in making a selection as to which one to keep. Billies are, of course, in no demand, and my advice to beginners is to scrap the lot at birth. If there is a question of making a selection from several nannie kids, choose one that is quickly on its feet. Hornless kids can be distinguished from those that will later grow horns. The latter will have a little patch of flat, curled hair where the horn will grow, and the forehead of the hornless ones will be smooth. In some cases a very small prickle of horn can be felt at a few days old. A pointed muzzle is very desirable, and is said to indicate milking qualities. Having been chosen as the survivor, the kid should be accommodated in a little enclosure near to its mother, and be allowed to take milk four times daily for a couple of weeks, and after that three times, but it should not be left with the mother. After the first three days the goat should be milked out morning and evening after the kid has fed, and should be put on to more free rations. Her milk yield will gradually increase, and will be at the maximum, at six weeks from the time of kidding.

(Continued at Foot of Previous Column).

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

THE FOOD PURCHASE SCHEME.

The success of the scheme is assured, and the announcement that we are now in a position to supply *one cwt.* lots has given immense satisfaction to those of our members who do not keep a sufficient number of fowls to warrant their buying in larger quantities. We are now able to supply from our Birmingham centre, and this will be of the greatest help to the many poultry-keepers in that district. Prices are quoted in another column, and it should appeal to all those who have been paying 20s. or more per cwt. for foodstuffs, which the S.P.B.A. has arranged to supply to its members at, in some cases 50 per cent. less cost. I am not going to pretend that it has been all plain sailing. In organising a scheme of this kind there is necessarily a tremendous amount of work to be done, many difficulties to be smoothed over, many problems to solve; but we have won through, and such difficulties as we shall now meet will be only those which are the experience of every man in business. It may interest some of our members to know that we are sending foods to the Canary Islands. When one thinks of the extraordinary prices asked for some of the proprietary foods, and realises that a mash containing the most expensive ingredients can be mixed at an outside cost of 13s. 6d. for the actual ingredients, we begin to understand the educational effect of the S.P.B.A. Food Scheme, and the awakening of the public to the fact that these excessive prices are wholly unnecessary, that they have been exploited, *and that no one can possibly keep poultry profitably* if they pay upwards of 20s. for a mash which frequently consists largely of such cheap ingredients as palm kernel meal, locust germ meal, or other waste products. If the scheme had done nothing more, it would have justified itself, because it has opened the eyes of the public to the excessive prices they have been paying. If we ask our members to support, it is simply because of the beneficial effect it is bound to have upon the industry as a whole, and, indirectly, if not directly, everyone of them is bound to benefit. *The Council of the S.P.B.A. is not running the scheme for profit, it carried out the instructions given by members at the General Meeting, to arrange to buy foodstuffs for them at the most economical price.*

INHERITED TENDENCY AND BAD HATCHING.

"Am I unfortunate, or is there an inherited tendency in high pedigree eggs to hatch badly?"

This question has been asked by one of our members, who bought 30 White Wyandotte eggs of high price and pedigree from a reliable breeder. There was no sign of rough usage on rail. They were placed in a hot-air machine after 24 hours' rest with 70 of his own eggs. On testing there were six clear in each lot, but of the travelled eggs there were 14 "broken yolks," while of the 70 only 10 were removed. Broken yolks are usually attributed to rough handling, or too high a temperature when starting incubation. What we call a broken yolk is really a ruptured blood vessel. Without expressing a definite opinion, I do not think it arises from rough handling, because if the handling was so rough as to occasion it, it would be too rough to allow the germ to start into life. It is possible that it may be caused by too high a temperature at the start of incubation, but even so, I don't think this occurs in a normal egg, but is to be traced to some weakness due in the first place to the breeding stock. We are incubating some eggs on the Experimental Farm, and they are from three pens of Leghorns. On testing we found six broken yolks, but they were all from one pen. All the eggs were in the same incubator, and the conditions were the same, so that the inference is that the stock birds are at fault. Now to answer my correspondent's question. It is hardly a question of "inherited tendency," but rather one where all else has been forgotten except the hen's record. It has been demonstrated beyond doubt that high records are not inconsistent with good hatchability and rearability, and that frequently the poor producer lays eggs which are unhatchable, and produces chicks which are unrearable. Poor production is by no means a guarantee of good hatching or good rearability. The arguments of some people would lead one to suppose that it is. The real cause of poor hatching and rearing with heavy producers is the failure in individual selection and the craze for high records, which prevents many breeders from discarding those weedy individuals, which are included in the breeding pen because of a big record, and which are too often lacking in bone, in size, and in every character which would entitle them to a place in the breeding pen. Hatchability is inherited, whether good or bad; *it would be a grave mistake to encourage the belief that high records are incompatible with good hatching and rearing.*

CHICK MORTALITY.

I wish I could impress upon members who are losing large numbers of chicks, the importance of obtaining an early opinion as to the cause of the mortality. It would be far better to have a post-mortem made at once than to write to me, explaining the symptoms, which are very frequently those of more than one disease. May I take the following as an example:—

> "I am losing seven or eight chicks every day. The symptoms are huddling, moping, drooping wings, and the crops are generally full."

Now I think you will all agree that it would have been advisable to send a chick for post-mortem examination when my correspondent first realised that the mortality was above average. Although I might say that this was a case of Coccidiosis, and in 90 per cent. of such cases I should be right; there is the chance that I might mislead, because, as I have said before, symptoms cannot be relied upon. These symptoms are those of chicks suffering from Coccidiosis. The crop is full because digestion is arrested, but digestion is arrested when the chick is suffering from other diseases besides this. Drooping wings and moping are not distinctive symptoms of any particular disease. All sick chicks mope, and their wings droop, while huddling is frequently caused when the chicks are chilled. I hope members will appreciate that it does not make any difference to me personally whether they write to me in the first place, or send a chick to Major Saunders, but it does seem a pity when there is a possibility of saving a high mortality that they should not take what would be the best course.

CHILL.

Returning once more to the subject of disease, I will take the following as an example of what I mean. My correspondent writes that he bought some pullet chicks. On the second day he noticed several of them were a deep yellow colour around the vent, and the fluff seemed gone, and that night they were restless, and wanted to huddle, although the temperature of the brooder in the heated chamber was 98 degrees. In the morning six were dead, and he examined them, and found their crops were full—some with grain and some with skimmed milk only. On the next day some more went the same way, and the day following some more, and there are now even some more going. My advice would be appreciated. The breeder says that he must have chilled them in some way.

Here was a case where the chicks should have been sent for post-mortem examination at once. I cannot say whether they are dying from chill or Bacillary White Diarrhoea, but when losses of this kind occur, no harm, and a great deal of good may be done, if, while awaiting the result of the post-mortem examination, 40 grains of citrate of iron and quinine were added to the gallon of drinking water, and the chicks allowed nothing else to drink. This will not check an outbreak of B.W.D., but there is always a chance of chill, and this will be found very effective in preventing a high mortality if that be the case. Care also should be taken to protect the chicks from ground draughts.

GLAMORGAN AGRICULTURAL COMMITTEE.
COUNTY EGG-LAYING TRIALS, 1925-1926.

Report for Fourth Period.

Heavy Breeds.—J Joshua, Tondue (R.I.R.), 1404 pts.; A. L. Davies, Moriston (W.W.), 1270; R. J. Evans, Abertridwr (R I.R.), 1121; Mrs. Jenner, Wenvoo (W.W.), 1045.

Light Breeds.—Howell and Phillips, Barry (W.L.), 1675 pts.; D. J. Thomas, Pontardawe (B.L.), 1289; A. J. Jenkins, Barry (W.L.), 1125; R. J Evans, Abertridwr (W.L.), 866.

Single Birds. Heavy Breeds.—G. A. Monk, Ynysybwl (W W.), 430 pts.; G. Haylings, Ynysybwl (W.W.), 430.

Light Breeds.—T. E. Lewis Pontardawe (W.L.), 152 pts; G A. Monk, Ynysybwl (W.L.), 82.

Dry mash birds laid 688 eggs during this period. Wet mash birds laid 381 eggs during this period. Bird No. 3 of Pen 17 (W.L.) died on January 10th. Cause unknown. Bird No. 3 of Pen 53 (Barnevelder), died on February 4th from pseudo-leukaemia.

FOOD PURCHASE SCHEME.

Referring to the odd cwts. which are now to be supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown. This is to cover the extra expenses and handling, which the one cwt. business involves.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

Fish Meal (Pure White) ...	**19/6**	**F.O.R. LONDON.**
,, ,, ,, ...	**19/6**	**F.O.R. BRISTOL**
,, ,, ,, ...	**17/9**	**F.O.R. SWANSEA.**
,, ,, ,, ...	**17/9**	**F.O.R. TYNEMOUTH**
,, ,, ,, ...	**17/9**	**F.O.R. GRIMSBY.**
,, ,, ,, ...	**18/3**	**F.O.R. BRADFORD.**

PRICES OF MASHES.

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	10/9	10/9	11/0	11/6
F.O.R. LIVERPOOL	11/9	12/0	13/3	13/3
F.O.R. LONDON	11/6	11/6	12/6	12/9
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN ...	11/0	11/0	11/9	12/3
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/6	11/6	12/3	13/0
F.O.R. SOUTHAMPTON .	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH ...	12/3	12/6	12/3	14/0
F.O.R. ABERDEEN	12/9	11/9	13/9	13/9
F.O.R. HARROGATE ...	12/9	12/6	13/6	13/6
F.O.R. GLASGOW	12/3	12/3	12/3	13/3
F.O.R. STAFFS	11/0	11/0	12/6	12/3
FO.R. SUSSEX (East) ...	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/3	10/9	11/6	11/3
F.O.R. SUSSEX	11/6	11/6	12/6	12/6
F.O.R. BRADFORD	12/6	12/3	13/3	13/3
F.O.R. BIRMINGHAM ...	11/6	11/6	12/3	12/6
F.O.R. GREENOCK	11/6	12/0	12/9	13/3
F.O.R. TEWKESBURY ...	11/9	11/9	13/0	13/6
F.O.R. BOLTON	12/0	12/0	13/0	13/0
F.O.R. MIDDLESBROUGH	11/6	11/3	12/0	12/3

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	16/9	14/9
F.O.R. LIVERPOOL	18/3	14/9
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEICESTER	16/9	14/9
F.O.R. KING'S LYNN	17/0	15/0
F.O.R. BELFAST	18/0	16/9
F.O.R. BRISTOL	17/6	15/0
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	14/9	13/9
F.O.R. HARROGATE	17/9	—
F.O.R. GLASGOW	17/3	15/3
F.O.R. STAFFS	17/0	14/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	17/0	14/9
F.O.R. SUSSEX	18/0	14/9
F.O.R. BRADFORD	17/6	15/9
F.O.R. BIRMINGHAM	18/0	16/0
F.O.R. GREENOCK	18/3	15/0
F.O.R. TEWKESBURY	18/3	16/3
F.O.R. BOLTON	17/0	15/3
F.O.R. MIDDLESBROUGH	17/3	16/0

			Per Cwt.
MAIZE GRITS	F.O.R.	LONDON	10/6
MAIZE GRITS	F.O.R.	IPSWICH	10/6
S. G. OATS	F.O.R.	LONDON	13/3
S. G. OATS	F.O.R.	SUSSEX	12/6
S. G. OATS	F.O.R.	BRISTOL	13/0
MEAT AND BONE MEAL	F.O.R.	LONDON	13/9
MEAT MEAL	F.O.R.	LONDON	14/3
MAIZE GERM MEAL	F.O.R.	LONDON	8/9
MAIZE GERM MEAL	F.O.R.	IPSWICH	8/9
MEAT AND BONE MEAL	Carriage Paid		15/3
MEAT MEAL	Carriage Paid		15/9
ALFALFA	F.O.R.	LONDON	13/3

We have now been able to procure a consignment of English Alfalfa Meal, and can offer this at 11/6 per cwt., F.O.R., from a town in the Midlands.

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

LIVERPOOL AND DISTRICT BRANCH.

The March Monthly Meeting and Egg Show will be held in the "Albany Room," Palatine Cafe, Lord Street, Liverpool, on Saturday evening, March 13th, 1926, at 7.0 p.m. prompt. Lecturer: Mrs. Tom Newman. Subject: "The Management of Young Stock."

Egg Show.—Two Classes for Hatching Eggs (six eggs per plate): First Class, Six White Hatching Eggs; Second Class, Six Brown or Tinted Hatching Eggs. First Class Certificate of Merit in each Class; Second Class Certificate of Merit in each Class, if six or more entries; 5s. Special in each class, if ten or more entries. Entrance fee 6d. per plate. Judge: Mrs. Newman. Members of the S.P.B.A. and friends who are not themselves members of the Liverpool Branch, are cordially invited.

The February Monthly Lecture was held at the Headquarters of the Branch, the "Albany Room," Palatine Cafe, Lord Street, Liverpool, on Saturday evening, 13th February, 1926, at 7.0 p.m. Professor Willard C. Thompson, B.S. (Ayr), Director, National Institute of Poultry Husbandry, gave us a very interesting lecture on "The Work of the National Institute of Poultry Husbandry," and also described the lay-out of the Institute Poultry Plant in minute detail. He kept his audience very interested, and also caused much laughter with his "goat lore."

A vote of thanks was proposed to the lecturer by Mr. H. Banks, and seconded by Mr. Copeland, and carried unanimously.

A very enjoyable evening closed with a vote of thanks to the Chairman, Mrs. E. Douglas Kendall.

R. J. THOMAS, 9, Grey Road, Walton, Liverpool, Hon. Sec.

KEIGHLEY AND DISTRICT BRANCH.

Keighley and District Branch of the S.P.B.A. held their third open egg show in the Temperance Hall, Keighley, on Wednesday, March 3rd, 1926. Mr. Hodgson, Oakworth, judged the exhibits. After awards were made, Mr. Rhodes, of Messrs. Green and Rhodes, Hon. Auctioneers of the Society, sold the eggs. This show was the most popular yet held. The room was packed with members and friends to its utmost capacity. The chief attraction was the address given by Mr. Frank Snowden, Cowling, entitled: "Incidentals on a Pedigree Poultry Farm, January to June." Commencing with the mating up of the stock birds, which Mr. Snowden said should all be in the breeding pens by January 1st, he detailed the methods followed at Raikes Hall. Feeding the breeders, size of eggs to be incubated, the method of pedigreeing the chicks as soon as hatched, feeding and rearing the chicks up to the end of June were all carefully explained. Many questions were asked and answered. At the conclusion of the address Mr. Clifford Smith proposed a hearty vote of thanks to Mr. Snowden. It was nothing, he said, new to those members who attended the meeting regularly to have such valuable advice and information given them. Mr. Snowden was ever ready to help the members in any way he could. Mr. T. W. Wilson seconded the motion, which was carried with applause.

The awards were as follows:—

Class I. Hatching Eggs, six white hen eggs.—1, N. Hiley, East Morton; 2, G. Davey, Sutton; 3, Mrs. Barker, Cullingworth; res. and c., Mrs. A. Wilson, Denholme; v.h.c., Mrs. H. Wilson, Cross Roads; h.c., G. Davey.

Class 2. Six tinted hen eggs.—1, H. Sanderson, Oakworth; 2, Mrs. H. Wilson; 3, Mrs. A. Wilson; r., W. Holmes, Keighley; v.h.c., N. Hiley.

Class 3. Six brown hen eggs.—1, N. Hiley; 2, H. Butterfield, Denholme; 3, G. Davey; res., H. Sanderson.

Class 4. Commercial eggs, six white hen eggs.—1 and 2, N. Hiley; 3, G. Davey; res., Mrs. A. Wilson; v.h.c., Mrs. Mallett, Summerbridge.

Class 5. Six tinted hen eggs.—1, N. Hiley; 2, H. Sanderson; 3, Mrs. Mallett.

Class 6. Six brown hen eggs.—1, N. Hiley; 2, H. Sanderson; 3, Mrs. A. Wilson.

Class 7. Six duck eggs, hatching.—1, 2, and v.h.c., Mrs. A. Wilson; 3, Clifford Smith, Keighley; res., H. Kershaw, Keighley.

Positions for Silver Challenge Trophy, offered by the society for most points in the whole series are:—1, N. Hiley; 2, Mrs. A. Wilson; 3, G. Davey; 4, H. Sanders; 5, E. Hodgson; 6, H. Kershaw.

Positions for Silver Spoon, offered by Mrs. A. Wilson, for most points in duck egg classes are: 1, Mrs. A. Wilson; 2, H. Kershaw; 3, C. Smith.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICATIONS FOR MEMBERSHIP.

Wild, J. T., 541, Oldham Road, Failsworth, Manchester.
Prehn, E. T., 29, Dirnavu Iela, Riga, Latvia.
Eayrs, C. B., Pickworth Lodge, Great Casterton, Stamford.
Hartopp, Mrs. L. Burns, Burton Lazars, Melton Mowbray.
Bailey, J. W., 5, Ryefield Terrace, Golcar, Huddersfield, Yorks.
Shaw, W., 26, Heathfield Road, Golcar, Huddersfield, Yorks.
Millar, Mrs. E. W., St. Mary's Rectory, Arbroath, Forfarshire.
Yerburgh, G. B Wardell, The Electric P.F., East Harptree, near Bristol.
Wither, Capt. C. P. Bigg-, Grovesend Farm, Ledbury, Herefordshire.
Amos, H. Coldblow Farm, Detling, near Maidstone.
Smith, C. A., "Gladwish," Harrietsham, Kent.
Edwards, Mrs. Molesworth, Coxdown P.F., Broad Oak, Heathfield, Sussex.
Davies, Mrs. N. S., Manor Farm, Purton, Berkeley, Glos.
Elworthy, Mrs. M W., The Bungalow, Monkton, Dorchester, Dorset.
Sargeant, W. H., Newpool, Biddulph, near Congleton.
Lambert, Miss J, Hope House, Snettisham, near King's Lynn.
Heap, G., Heather, Leicester.
Kirston, S. S. (Flying Officer), Leuchars Lodge, Leuchars, Fife.
Christian, Mrs. M., Carbrooke, Mottingham, S.E.9
Bullus, R. H., "May View," 10, Lawn Street, Stourbridge.
Read, A., "Orchardleigh," Milton, near Weston-super-Mare.
Barnes, W., 3, High Street, Blyth, Northumberland.
Wilson, H. C., Ballydugenan House, Toomebridge, co. Antrim.
Kirk, H. J., "Ontario," Hollybush Hill, Snaresbrook, E.11.
How, F G., Longdon Hill, Bengeworth, Evesham.
Shaw, J., Gallows Hill, Pool, Yorks.
Whadcoat, H. O., Rockcliffe, Milton, New Milton, Hants.
Blake, C., Mill of Dess Farm, Dess, Aberdeen.
Hobbs, W. T., "Nenehurst," Rushden, Northants
Grigson, A C., 16, Staines Road, Hounslow, Middlesex.
Rees, H. S. C, Saltersford School, Holmes Chapel, near Crewe.
Ashworth, H, Pine Ridge P.F., Tibberton, Newport, Shropshire.
Fenby, E. E., 20, Chapel Street, Warwick
Blechschmidt, Mrs. J. H., The Wymondham P.F, Wymondham, near Oakham, Rutland.
Barnett, A W., The Lilies, Barnham, Sussex.
Uttley, H. R., Hawkesclough Farm, Mytholmroyd.
Garnham A E., 41, Norwich Road, Ipswich.
Wyllie, Thomas, Holms, Beattock, Dumfriesshire, N.B

Correspondence—Continued

To the Editor of "Eggs."

Dear Sir,—Seeing in "Eggs" your correspondent's worries with small batches of day-old chicks, having started with too low a temperature, I should like to send you my small experience in case it might help others in a small way.

Three years ago I started with 25 hens and a cockerel, having had no experience with fowls and knowing nothing about them. I have learnt what I know chiefly from "Eggs." My friend, who sold me everything (having to give up through ill-health), said, "Don't worry with brooders; they are the dickens." The first year I had to, as I had nowhere suitable to run the incubator. I did quite well, and never lost a chick that hatched. I had nine or ten from every dozen.

The following year I ran a gas incubator, holding 60 eggs—hatched out 47 chicks, which were sent straight into a fireless brooder, which is a glorified haybox. In fact, my gardener has made himself one easily. You probably know these, consisting of two compartments—one containing a nest of hay with a canvas frame stretched over and felts over that; the other a tiny scratching shed. I followed the instructions of the brooder, and fed according to your formalæ, "From Shell to Maturity." After the first two or three days, when one has to go every two hours and show the chicks the way in and out, they are no more trouble, and, except for three corn feeds and cleaning out first thing, look after themselves.

I have the brooder in a small wired-in run of grass, and on the sixth day let them out; they very soon learn where the door is and run in and out to feed or get warm in the nest—no worrying lamps? I have been quite successful last year and so far this year; they are now a fortnight old. I have never had any of them ill, except who were rather weakly and caught cold: a day in a basket by the fire cured them, and they never looked back. If this is of use, please use it.

Yours truly,

A. M. GRANT EVANS.

THE INTENSIVE SYSTEM.

To the Editor of "Eggs."

Dear Sir,—In your Editorial you ask me a question which I hasten to answer. Let me preface this by saying my remarks on the Intensive System apply mainly to the large commercial poultry farms, on which the analysis of the costs of running a laying hen lead me to conclude that the minimum number per man employed must not fall below 1,000 head to make the business worth while. I am writing for the capitalist poultry farmer. For the close between the poultry-keeper and the capitalist farmer I am not so sure. At any rate, no one wishes more success in your endeavour than I do, for, as you rightly say, success would be a blessing to the small man with very limited space. The first houses built for intensive poultry-keeping on a large scale were built in 1904. They were admittedly bad houses, and the results were very disappointing, although the experiment was continued for three or four years. The second trial was in 1910 or 1911, the houses then were excellent, and were based on the experience brought by Mr. Meech from America. They were not large houses, but had sliding roofs. The labour costs were excessive; the supply of green food, the continued cleaning and adjusting the houses to suit the ever-changing conditions of the weather, compelled me to dispose of the houses to someone who bought them for breeding pens. The last and most ambitious attempt was made in 1914, when a range of buildings 280 ft. long by 16 ft. deep was divided up into seven compartments 40 ft. long each. In this attempt every effort was made to avoid previous mistakes, the range was in a most favourable position, with all the advantages of sunlight and shelter. The houses were lean-to in shape, 7 ft. high in front, 5 ft. at back, with boarded and corrugated galvanised roofs.

The fronts were wire-netted within 6 inches of the floor to admit all light and sun possible, but in rough weather shutters could be put up to protect the lower part of the front; other arrangements were made for adjusting the ventilation to suit varying conditions. Every effort was taken to make this expensive undertaking a success. Pullets were used, and for the first winter did fairly well, but when the spring came, became anaemic, and had to be placed in other houses with outside runs, where they soon recovered and laid well.

Possibly pullets might be run intensively for their first winter with good results if they can be taken out in April and May and given outside runs, but for second-season birds I found the intensive system hopeless. Also, in every experiment the question of green food involved much labour and difficulty. It would be no light matter to supply 2,000 hens with green food artificially grown and prepared; this alone seems to me sufficient to defeat the profitability of the whole scheme. But there are other factors of great importance. I hope I am wrong, but I do not believe the intensive system will ever equal in advantages, either for the large or small poultry-keeper, a well-designed semi-intensive, but it may be helpful to the smaller poultry-keeper who has no other means of keeping poultry, but even he will have to change his stock every year. The range of houses referred to is still in existence, and is used for cockerels after they leave the chicken houses. It is now fitted with exercise and airing yards, not large enough to grow the green food, but the best I can give.

It is the nearest approach we have to the intensive system. All of us know, however, that it would be far better if we could give these young birds the wide ranges given to their sisters; they would do better and be less trouble. We are short of room, and have to make the best of it for the least important stock.

Yours faithfully,
T. W. TOOVEY.

(We will reply to the points raised in Mr. Toovey's letter in next week's issue.—Editor.)

ANSWERS TO QUERIES—Continued.

E. E. P. (Kilkenny) sends me a sample of ground oats at 13s. 6d. per cwt., guaranteed 90 per cent. pure, and to contain the whole ground oat. These are not "Sussex" ground oats, but are a very good sample, and would answer the same purpose. They are good value for the money and quite suitable for feeding chicks. The pollard is a sample of good average quality. It is described as "best white," but I should hardly say it was that, and it is a little dear at £11 5s., but it is a fairly good sample and suitable for the purpose.

G. S. K. (Catsfield) wants a wet mash for chicks up to three months old. He should begin with biscuit meal scalded and dried off with middlings, and bread and milk. Another good feed would be Sussex ground oats moistened to a crumbly moist condition with milk. Later on he could give the following mash:—Biscuit meal and Sussex ground oats one part each, middlings four parts, meat and bone meal quarter part, scalded and dried off to a crumbly consistency with bran. From three months to six months old the following dry mash could be given:—3 lbs. bran, 4 middlings, 1½ ground oats, ½ maize meal, and ½ meat and bone meal.

E. W. writes that last season he lost several pullets about four months old by leg weakness. He is of opinion that the trouble, or at least some of it, was due to the overfeeding of grain, and the consequence was that little mash was eaten. He wishes to know what quantity he should feed with dry mash for lots of about 60. Also, will it be safe or advisable to give milk to drink if dry mash as supplied by us is fed to the chicks for the first few weeks? In reference to this question of leg weakness, I cannot be sure, but it would seem to me that there may have been losses through a deficiency of the lime salts, and it is probable that this would never have occurred had my correspondent given his pullets free range over good grass land, but, on the other hand, there is also the possibility that it was due to overfeeding. Approximately a growing pullet four months old would be eating two ounces of mash per day and about 1½ ounces of grain, but this is only approximate, and one must judge by observation. Milk could be given in the first month with the mashes which we are sending out. After that it would not be advisable, nor would it be necessary.

F. A. (Bolton) wishes to know whether the sexometers or other instruments advertised for telling the sex of eggs are reliable, and whether I can explain the way they work. Also why he had such a bad hatch, and he sends one dozen eggs so that I may be able to answer the question. In answer to the first, these sexometers are not reliable, and in no way can they indicate the sex of the egg; we would not advertise them in these columns. It is simply a case of auto-suggestion. My correspondent will get the same results if he threads an ordinary needle and holds these over the eggs. With regard to his bad hatch, the indications are that the eggs had been held for some time. In four of them the membrane was hard and dry, in two others the germs had died at a very early stage, and only one had reached "pipping" time. There was nothing to indicate that the conditions in the incubator were at fault, and I can make no useful suggestion, save that the eggs should be better stored before incubation.

K. R. (E. Yorks). The mating R.I. Reds-Light Sussex will give you buff or red pullet chicks and white or silver cockerels. I would not think this cross profitable to hatch as a general rule after the middle of April. Yes, a first cross of this kind would come into production slightly earlier than the pure of either breed, therefore you can hatch them a little later. I don't expect it to result in increased broodiness in the flock, but you will probably find some individuals broodier than either pure breed. (2) I cannot say positively, but the symptoms you describe certainly indicate that the chicks died from chill contracted on the journey. The best treatment would have been to give 40 grains of citrate of iron and quinine to the gallon of drinking water. It is a very bad loss, but I don't quite see how you can blame the breeder; you say the chicks were well packed. (3) You may tell your friend that it does not follow that the Sussex cockerel is impure because two or three of the chicks have yellow legs. The Sussex was bred from the Light Brahma, which was a yellow-legged breed, and these odd cases of yellow legs popping up in the chicks are due to reversion. Many thanks for your appreciation of "Eggs."

Scot (Lanark). We have a recorded case of an egg being fertile nineteen days after the removal of the male, but this is very exceptional, and you will be perfectly safe if you place the new bird in the pens at once, and collect eggs from his mates in ten days. (2) I note that you agree with what I have said as to excessive use of animal food, but you must not go to the other extreme, and the health and vigour as well as the production of your breeders would be improved if you doubled the quantity you are at present using. I have had no experience with the new proprietary food you mention, and all these claims are invariably made. Laboratory tests are not of much help to us, we want field tests. If you add 2 per cent. cod liver oil to any ordinary mash, you will always have the vitamins you want, and all the bottled sunshine, and this is a much cheaper way of using it than paying an extra 10s. a cwt. for someone else to add it. No one ever equalled the results we obtained at Wellingham last year; the mash cost 13s. 6d. per cwt. for the actual ingredients, and it contained all the bottled sunshine necessary.

G. Win. (N. Lancs.). I am very sorry to hear you have had such bad luck. I think that all that can be said on coccidiosis has been said at present. It would be madness to run the next batch of chicks over this infected ground, and I think you would be wise to rear them intensively as you suggest. The only other suggestion that I can make is that you give them sulphate of iron in the drinking water from the start. This was tried on one farm, and although it would be most unwise to say the results were satisfactory, as it may have been pure coincidence, a second outbreak did not occur, or at least the losses were very small. I cannot promise anything from it, but it is worth trying. I suggested it to the breeder, and he wrote me to this effect:—I don't think it will help you in the least to turn from wet to dry feeding, that is so far as this trouble goes. I do not for a moment think that the trouble was likely to arise from any of the cockerels you imported.

S. M. (West Dorset) has White Orpington hens which he wishes to cross for table purposes, and he wishes to know the best male to use. If he wants a quick-maturing cross, the best for his purpose would be a Houdan cockerel. This gives a most excellent quality, a better layer than the Faverolles, which is also very good. If he wants a bigger bird, also of first-class quality, needless to say, but a poor layer, the Game would be excellent. The value of the Houdan is much under-rated; it is certainly one of the best table crosses, and remarkably fertile. With regard to samples sent, the ground oats at 14s. delivered are not Sussex ground, but are good value, and I cannot advise paying 2s. per cwt. extra for Sussex ground when these are so good that they will answer the same purpose. The meat and bone meal is fairly good, but the bone is very coarse; the clover meal contains too much of the seed pod; a good sample of alfalfa meal would be better.

Disappointed (Wellingborough). It was certainly a disappointing hatch, but unless you send me more particulars I am afraid I can't help you. I understand you followed maker's instructions implicitly, but then they are equally applicable to a dry attic and a damp cellar, and it is necessary for all of us to study our own conditions. The fact that you discovered the temperature had dropped to 100 degrees on the sixth day in no way explains the poor results. Those you describe as having a red streak had what is known as broken yolks, and this may have been due to the stock birds. As I do not know the percentage of clears, addled eggs, dead germs, and the real dead-in-shell, I am unable to help you. It is quite possible that the feeding may be at fault.

Wyandotte (Notts.) is upset, and we can sympathise with him. He has an excellent strain of Wyandottes and in the autumn he visited a well-known breeder to buy a male bird. He made his own selection, and was satisfied he had a beauty. Now from the first hatch he has 20 per cent. chicks with single combs, and he tells me he is furious. It is no good telling him that won't help matters, but that is how we generally hear another man's toothache, and it doesn't help. I cannot see that he has any claim on the breeder. This male carried the single-comb factor, but there is also the possibility that some of "Wyandotte's" hens also did so. There is no help for it, merely killing off the single-comb chicks will not prevent the same trouble next year, as many of the birds with rose-combs will also carry the single-comb factor, and it will turn up in the progeny. There is nothing for it but the breeding test, which has been described before in these columns, if my correspondent is to be permanently rid of the trouble. In answer to his second question, most certainly, if a male bird is introduced from a small-egg dam it will result in many of the progeny laying small eggs, even if their dam be a large-egg bird.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

KEIGHLEY BRANCH.

I understand from Mrs. Wilson, Secretary of the above Branch, that the members have been kindly invited by Mrs. Yowles to visit her farm on April 6th—that is, Tuesday in Easter week.

It is proposed to make the journey by charabanc, and Mrs. Wilson would be glad if all those who wish to go would notify her as early as possible.

It has been a long-talked-of visit, and members will find great interest and instruction in visiting a commercial poultry farm on such a large scale as that at the Court House.

I regret to say that Mrs. Yowles has had to go to the South of France on account of her health, but it is hoped she will be home in time to receive her visitors on April 6th.

MEMBERSHIP OF THE S.P.B A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.

MIDLAND FEDERATION ANNUAL PRIZE DISTRIBUTION.

ANNOUNCEMENT OF PRINCIPAL WINNERS IN PRIZE FUND SCHEME.

The Annual Prize Distribution was held at the Chamber of Commerce Assembly Room, New Street, Birmingham, on Saturday, February 27th, the chair being occupied by Mr. Maurice H. Brady, Chairman of the Federation. In his introductory remarks Mr. Brady outlined the aims and objects of the Federation, and mentioned the need for greater co-operation, particularly among the Societies, urging members to insist upon their clubs and societies to affiliate.

One of the most interesting objects of the meeting was to report the result of the Prize Fund Scheme, and announce the fortunate estimators of the correct subscribers.

This scheme was introduced as a means of providing the necessary finance for a new Laying Test, on an absolutely new site.

The land had been acquired, and it only remained to make the arrangements for establishing the plant, and details were also submitted whereby the Federation could found an Instructional School, and a laboratory for research into those diseases and ailments which calculate to discourage poultry-keeping attempts with the small beginner.

All these developments would involve a great deal of money, and it was only by combined efforts that these schemes could come into being.

Mr. Brady reminded the company present of the amount of work performed by the Council and delegates in the advancement of their poultry-keeping interests.

At this stage Mr. Clem Watson was called upon to address the meeting, and present the cups and diplomas won at the recent Midland Festival. Before making the presentation Mr. Watson touched upon the splendid array of cups which the Federation had to offer, and mentioned the solid basis upon which this Federation was building its activities, not in the immediate area of the Midlands alone, but in every part of the country. People realised what the Federation was, what its objects are and the nature of its achievements, and said many societies were copying the Federation's outlines, and adopting its policies for their own programmes. Mr. Watson urged the necessity for closer unity among poultry-keepers, both in their local interests and in connection with the National Poultry Council, the latter body being out to do all in its power to aid nationally in such vital matters as marketing produce, obtaining better railway facilities and protecting the poultry-keeper from unfair treatment at the hands of such authorities as Income Tax Assessors, and many other worthy objects. Not only did Mr. Watson bring home the value of more and better poultry-keeping endeavours, but when presenting the Rabbit Trophy he emphasised the need for more development in this branch of small livestock keeping, and so keep out much of the foreign fur imported into this country.

Mr. Broughall, Vice-Chairman of the Federation, after thanking Mr. Watson for his presence, gave a short report of the recent festival. This had involved a financial loss of over £200. Undoubtedly this festival was now regarded as a "classic" event, but it was to be regretted that insufficient support and patronage was shown to make this show financially successful. Everything was done to make this event a success from the educative point of view, and he asked for more support from the fanciers. The work of the Federation was in the interest of the fancier at large, who knew very little of the work and anxiety involved behind the scenes. Regarding the laying test, conducted by the Federation. This had done much to foster the poultry-keeping both among local small poultry-keepers and breeders in all parts of the country.

Mr. Broughall gave a few details dealing with the Sixth Midland Laying Test, in connection with which Mr. Clem Watson presented the medals, cheques for prize money, and diplomas won by successful competitors. In this laying test a special was put on for small poultry-keepers, and the records made by some of the birds were remarkably good, indicating the type of stock raised by some of these people styled "Backyarders." In summing up Mr. Broughall asked for support and with greater sympathy from the general community.

The Federation would strain every point in order that their work may still go on extending the interests of poultry-keeping and to the advantage of those fanciers who combined their efforts with this organisation.

A new feature in the activities of the Federation was a small poultry-keepers' competition, in connection with which Mr. Norman Tailby presented a Silver Challenge Cup to the winner. This was won by Mr. C. F. Hill, of Small Heath, and in handing him this cup Mr. Watson referred to the value of the small poultry-keeper in relation to the poultry industry, mentioning them as the "backbone" of this enterprise.

The outline of the Small Poultry-Keepers' Competition is as follows:—Practically the whole of the restrictions placed upon the entries were that the competitor must not keep more than 50 head of stock, and that the land occupied must not exceed a quarter of an acre, house included They thus aimed to exclude the commercial man to the sole encouragement of the enthusiastic amateur, who forms one of the mainstays of the industry to a much larger extent than is usually recognised. The visiting committee decided to inspect the entries, the date being kept secret, and the main points to be taken into consideration were: Stock records, type and state of housing, management and methods, and the general conditions. There was a member among the Visiting Committee who had competed in a similar National Competition, who was a winner out of about 350 entries.

The judges stated that on the whole the entries were of a very high standard, hence it was difficult for them to judge. The quality of the stock, health, housing and management, as well as for making the best of the circumstances, the competitors generally were well advanced. The winner of the first prize has an exceptional pen of stock and about 60 per cent. of his ground was taken up by his pens.

In expressing his thanks for the trophy, Mr. Hill paid great tribute to the immense value he had received through the poultry notes in the "Birmingham Mail," and that he was indebted to this and the assistance he had received from the Midland Federation for being able to win this cup.

Following the announcement, the newly-appointed hon. organising secretary, Mr. Geo. Walworth, M.A., gave a most comprehensive report on the Backyarders' Competition, emphasising the detail points in connection with each entrant. This report was greatly enjoyed and produced marked appreciation for Mr. Walworth's lucidity and clearness of explanation, and was much admired by every visitor.

Mr. Clem Watson paid high tribute to the Council and staff who carried through the work of the Midland Federation, and stated after close examination of the books in connection with the Prize Fund Scheme the result of his earnest calculations produced the figures 24,789, which were the number of shillings subscribed to the fund.

After careful organised search it was then stated that the principal prize-winners were:—Austin Seven Motor Car, E. Heap, 31, Walpole Road, East Ham, London, E.6.; A. J. S. Motor Cycle, E. Town, 14, Sandhurst Road, Catford, London; Gent.s' Cycle, A. Pickard, 13, Coventry Road, Chilvers Coton.

The names and addresses of other winners are too many to give here, and it was stated a full list will be prepared, and forwarded to every person who returned books of counterfoils or upon request.

With regard to the number of subscriptions, 24,789, the above stated persons successfully estimated the number and the nearest.

In order to prevent any error arising should any other subscriber have sent in a similar estimate on their counterfoils, and have not been included among the prize winners, will they be good enough to enter a claim immediately, so that their counterfoils can be checked, and so avoid any mistake, which may be easily possible in making the adjudication for such a scheme. Should no such information be received by Wednesday, March 10th, the above announcement will be taken as definitely correct.

All particulars should state letter or number of ticket, and be sent direct to Miss Shuker at 63, Old Meeting Street, West Bromwich.

Something about the Fancier.

By J. STEPHEN HICKS.

If one may be permitted to say so in a paper like "Eggs," a very great deal of misconception—or perhaps ignorance is not too strong a word to use—exists in the mind of its average reader as to the work, aims, and general "goings-on" of the Fancier—the man who breeds exhibition stock. To most of you he is a being to be steered clear of, one of whom the very mention makes you set lips tightly, while, grimly having passed a certain vote of censure (spoken or mental), you hastily change the conversation as soon as may be!

That this view, though common enough, is not altogether a just one, it will be the writer's endeavour to show presently, also, this very reticence on the subject above referred to is not wise, since, however opposed one may be to the other fellow's point of view, it can never be of any help in a discussion, controversy, what you will, unless one at any rate endeavours to understand it.

With this preamble, let us proceed briefly to sketch an outline of what occurs on the average fancier's poultry farm during the year. Before doing so, however, we must first make it clear what type of man this "average fancier" is. The "Fancy" is composed mainly of three classes of people—namely (1) The professional—soulless it may be, but efficient; (2) the wealthy amateur, employing one or more poultrymen and himself probably engaged quite otherwise than on his poultry farm—that is, as regards his life's work; (3) the hardworking fancier-breeder, rearing perhaps 600 chicks annually, and getting a living therefrom.

One word more, lest there be confusion between types 1 and 3. By "professional" is meant one who is more or less a dealer, usually buying his show "team" here, there and everywhere, winning with them, selling them, and buying more, rarely breeding any worth mentioning. To him nothing matters save prize money, and with him we are not now concerned, save to say that he is often mistaken by the uninitiated as a genuine type of fancier, which he is not. Nevertheless he is surely entitled to make a living at his particular game if he can honestly do so. But this, by the way.

In any case it is with No. 3 we propose to deal, and we shall, of course, have to take him "en masse," as it were, not as an individual. The average fancier breeder, then, has his good and bad points like all of us; on the credit side he is nearly always a clever breeder and rearer, and knows all his birds pretty well inside out. Helped, of course, by the extensive methods he employs, his stock generally will be found in much better condition than any other kind of poultry-keeper's. It is quite a mistake to suppose that his birds are unhealthy or weak in stamina. On the contrary, his rearing losses are probably infinitesimal, bar any special trouble.

On the debit side, the fancier is undoubtedly slow-going and suspicious of change; inclined to regard science as applied to poultry culture, with indifference, and no doubt somewhat self-centred. Lack of push and initiative prevent him from looming in the public eye as largely even as his undoubted abilities deserve. He trusts almost invariably to his own intuition and knack in the general management of his business, scorning rules of thumb, and it is only fair to him to admit that his instinct rarely lets him down.

On the whole, it must be confessed that he is not a good business man in the generally accepted sense of the term—that is to say, chiefly in what might be called the "office" department.

Now as to the fancier's aims and ambitions. He is, of course, the doyen of the great poultry industry, and his pioneer work in evolving breeds and varieties should never be forgotten. When each newcomer appeared on the scene, certain keen souls met and drew up what are called the General Standards of excellence—that is to say, a description was put on paper concerning the details which it was considered an ideal fowl of that variety should exhibit. Chief among these was type, a somewhat vague term considered to embrace all the essential characteristics of that particular family, but chiefly including shape.

Now the fancier, in standardising certain body outlines, was by no means ignorant of what he was about. Years before Hoganism or any other method of "handling" was thought of, we were all taught to "line" a fowl. This process consisted of drawing an imaginary line from the point on the shoulders, where the hackles rest, downwards to the thighs, and, according as the bulk of the body lay, either in front or behind this line, so we classed the bird as a table or laying sort, while, if the balance was about equal, the subject fell into the general-purpose category. Thus, when each new breed came out (its inventor having claimed the usual marvellous utility qualities for it) those who drew up standards saw to it that the ideal birds, by being of a certain shape, must necessarily have the requisite potentialities, at any rate of utility, about them, it being always remembered that eggs are not the sole useful feature about a fowl.

Reference must be made here to the fact that in the past the fancier has been guilty of exaggerating certain minor features—e.g., combs, lobes, foot-feather—to such an extent as has brought its own punishment in train. But this kind of thing is emphatically very much less in evidence to-day than formerly, and, candidly speaking, if we except one or two instances in which undue size or looseness of feather still carry too much weight, the modern show bird is also in the main a good utility bird, because breed type is rightly considered as of almost paramount importance.

The fancier breeder's object is, of course, to produce annually as many chickens up to, or approaching, the ideal as possible. Partly, no doubt, because the better his crop the more filthy lucre they will bring him, but also partly because of a genuine love of a good bird or animal that every real fancier possesses, and again, partly because of the joy of successful competition.

Truth to tell, nevertheless, the ideal is unattainable as always, and there is absolutely no royal road to breeding winners. Hence even the most expert fanciers have their ups and downs, nothing being certain as to the percentage of show birds that will eventuate from any mating, however perfect this may appear to have been.

Impossible as it is to lay down any hard and fast rulings on the point, one can strike an average and say that a well-established strain in capable hands may be expected to produce something like the following:—

Per 100 chicks reared to maturity.

(1) Bird fit for any competition.

(7) Second-flighters, just lacking Championship class.

(25) Birds good enough for small show.

(57) Respectable enough in type but lacking some essential point or feature.

(10) Wasters—either structural or through some atavistic reversion in colouring, head-points, shape, etc.

How these birds are treated during the year must be reserved for another occasion.

BOARD OF AGRICULTURE FOR SCOTLAND.

EGG-LAYING TEST, 1925-26.

Report for the Fourth Period—7th January, 1926, to 3rd February, 1926.

The weather during the fourth period of four weeks was of a varied character. The early part was mild for the season, but towards the middle of the period easterly winds brought an abrupt return of wintry weather with a further fall of snow, necessitating total confinement of the pullets for a week. The birds continue to enjoy good health. Moulting was less prevalent, although 55 pullets and seven ducks were still affected. There were no broodies during the period. The total number of eggs produced during the period was 6,853, an average of 13.30 per bird, as compared with 5,622, and an average of 10.89 last month, the average per bird since the beginning of the test now standing at 42.48

There was an increase in the egg production in the Duck Section, the total number for the period being 963, and an average of 10.35 per bird, as compared with 191, and an average of 2.03 last month, the average per bird since the beginning of the test now standing at 19.51.

Egg Production of Leading Pens at end of Fourth Period—3rd February, 1926.

Figures are Eggs and Points respectively.

Section 1. White Leghorns.—J. B. V. and W. Cummings, Penicuik, 339, 334; J. Prentice, Uddington, 353, 297; J. Tait, Boathouse, Uddingston, 279, 276.

Section 2. White Wyandottes.—Lady V. Astor, Meilkeour, 404, 356; A. Thomson, Avonbridge, 356, 354.

Section 3. Rhode Island Reds.—Mrs. M. Logan, West Kilbride, 330, 329; J. Cooper, Carnwath, 312, 311.

Section 4. Non-Sitters other than White Leghorns.—J. Huntly and Son, Coldstream, 366, 345; White Heather Poultry Farm, Tullibody, 273, 267.

Section 5. Sitters other than in Sections 2 and 3.—The Misses Davidson and Chisholm, Gollanfield, 448, 400; Miss Harrison Bell, Welwyn, 380, 373.

Section 6. Ducks.—G. H. Simmons, Brimscombe, Glos., 251, 187; O. C. Brown, Scunthorpe, Lincs., 200, 165.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, MARCH 5th 1926.

GRAIN AND FEEDING STUFFS.—Fair supplies of British vheat meet a slow trade at easier prices, the average quotation eing 11s. 8d. per cwt., a reduction 2d. per cwt. on the week. mported is in quiet request, and sells at slightly lower figures. Iome-grown barley is freely offered, and, with a limited demand, arely maintains recent prices, while at Hull quotations are 3d. o 6d. per cwt. lower on the week. Foreign barley attracts little ttention, and reductions in price are recorded at several markets. Oats meet with little inquiry, but English generally sell t late rates, while some descriptions of imported are slightly heaper. Maize is in good supply, and, with a slow trade, is gain reduced, Argentine averaging 7s. 3d. per cwt., as compared with 7s. 5d. last week.

Bran and coarse middlings sell at lower prices at London nd Bristol, but elsewhere recent quotations are maintained. The demand for meals is small, and most maize products are educed in price, especially at London, where reductions of 1s. per ton are recorded. Oil cakes generally meet a limited trade, out linseed cake sells at recent figures, while some descriptions f cotton seed cake are cheaper on the week.

MILLERS' OFFALS.—Bran (British): Bristol, £6 15s; Hull, £6 17s; Liverpool, £7; London, £6 2s. Broad Bran: Hull, £8 7s; London, £7 15s. Middlings:—Fine (Imported): London, £7 12s; Coarse (British): Bristol, £7 5s; Hull, £7; Liverpool, £7; London, £6. Pollards (imported): Bristol, £5 17s; Hull, £5 10s; Liverpool, £5 10s; London, £5 12s. Rice Bran: Bristol, £7; Liverpool, £6 10s; London, £6 10s. MEAL.—Barley Meal: Bristol, £8 12s; Hull, £9 7s; London, £9 10s. Maize Meal: Bristol, £9 10s; Hull, £8 7s; Liverpool, £8 15s; London, £8 15s. Maize Meal (S. African): Bristol, £8 5s; Hull, £7 10s; Liverpool, £7 12s; London, £7 10s. Maize Germ Meal: Hull, £8 5s; London, £7 10s. Maize Gluten Feed: Bristol, £10 10s; London, £9 10s. Locust Bean Meal: Bristol, £9 10s; Hull, £9 10s; Liverpool, £9; London, £8 12s. Bean Meal: Bristol, £13 5s; Hull, £11 12s; London, £12 5s. Fish Meal: Bristol, £21; Hull, £20; Liverpool, £19; London, £18.

EGGS AND DEAD POULTRY.

Buyers of eggs continue to limit purchases to immediate needs, and, with increasing quantities arriving in the markets, prices have again declined, British and selected imported eggs being reduced by about 2s. 6d. to 3s. per 120 on the week. Quotations for dead poultry are firm, and best quality birds are readily cleared.

Week-end Prices—Eggs (per 120): British, 15s 3d, 13s 9d; Irish, 15s 3d, 14s 6d; Danish (18 lbs.), 16s 3d; Danish (15½ lb.), 14s 3d; Dutch, brown, 15s 6d, 14s 9d; Dutch, mixed, 14s 9d, 14s 0d; Belgian, 14s 0d, 13s 6d; Italian, 13s 3d, 12s 9d; Chinese, 13s 3d, 12s 3d; Argentine, 12s 3d, 10s6d; Polish, 12s 6d, 12s 0d; American, 12s 6d.

Dead Poultry (per lb.): Fowls—Surrey. 1s 10d, 1s 6d; Irish, 1s 4d, 1s 2d; Others, 1s 7d, 1s 2d. Ducks, 1s 8d, 1s 6d. Geese, 1s 3d, 1s 1d. Turkeys. 1s 7d, 1s 3d.

EGGS.

Per Doz.—Ashford: First, 1s 5d; Second, 1s 2d. Birmingham: First, 1s 8½d; Second, 1s 7¼d. Bridgwater: First, 1s 4d; Second, 1s 2½d. Chelmsford: First, 1s 6½d; Second, 1s 4¾d. Colchester: First, 1s 7¼d; Second, 1s 4¼d. Doncaster: First, 2s 2d; Second, 2s 0d. Dorchester: First, 1s 3½d; Second, 1s 3d. Exeter: First, 1s 6d. Hereford: First, 1s 6d. King's Lynn: First, 1s 6d; Second, 1s 4d. Llandilo: First, 1s 4d; Second, 1s 2d. Mold: First, 1s 6d; Second, 1s 4d. Newport (Mon.): First, 1s 9d; Second, 1s 8d. Norwich: First, 1s 6d; Second, 1s 4d. Oswestry: First, 1s 6d. Penzance: First, 1s 3d; Second, 1s 2d. Saffron Walden: First, 1s 4¾d; Second, 1s 3d. St. Ives (Hunts): First, 1s 4¼d; Second, 1s 3½d. Salisbury: First, 1s 4½d; Second, 1s 3d. Skipton: First, 2s 2d. Swindon: First, 1s 3½d; Second, 1s 1½d. Truro: First, 1s 2d. Welshpool: First, 1s 8d; Second, 1s 6d. *Carlisle: First, 1s 10d. *Derby: First, 1s 10d. *Ipswich: First, 1s 9d; Second, 1s 6d. *Lincoln: First, 2s 0d. *Shrewsbury: First, 1s 8d; Second, 1s 6d. *York: First, 2s 0d; Second, 1s. 11d.

FOWLS.

Per lb.—Birmingham: First, 1s 5d; Second, 10d. Doncaster: First, †6s 0d; Second, †5s 6d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 6d. Llandilo: First, 1s 8d; Second, 1s. 5d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First, 1s 5d. Welshpool: First, 1s 6d; Second, 1s 3d. *Derby: First, †6s 0d; Second, †3s 0d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 0d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d. *York: First, †5s 6d; Second, †4s 6d.

(Continued at Foot of Next Column).

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, March 10th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscription to "EGGS," 12s. 8d. per annum; 6s. 4d. for six months, 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick, Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.

We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

DUCKS.

Per lb.—Exeter: First, 1s 4d; Second, 1s 2d. Llandilo: First, 1s 8d; Second, 1s 5d. Welshpool: First, 1s 6d; Second, 1s 3d. *Ipswich: First, 1s 4d *Shrewsbury: First, 1s 6d; Second, 1s 3d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

Classified Advertisements.

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1d. per word—minimum charge, 1s. 0d.; 13 insertions at price of 12. Bold headlines inserted at an extra charge per insertion according to size as below:—

DAY-OLD CHICKS per line, extra 9d.
DAY-OLD CHICKS, „ „ 1s.
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The number of letters, punctuations and spaces between words should be totalled, when the following table will be of assistance:—

9d. size allows for Thirty-one to one line.
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When the remittance does not cover the size selected, a smaller corresponding size type will be used.

Insertion constitutes acknowledgment of remittance in the case of pre-paid advertisements. For a series of 13 insertions or more, a receipt is forwarded.

N.B.—Advertisements, unless accompanied by correct amount, will not be inserted.

Advertisements must be distinctly marked with the Heading under which they are to appear.

Advertisements must be written on a separate sheet of paper, and one side of the paper only.

Name and Address to be counted. In the case of a Box Number being used, the words, "Box." "Eggs," 94, Farncombe Street, London, S.E.16, to be counted as eight words, i.e., making a total extra charge of 1s. 8d. (1s. for Box; 8d. for address) per insertion.

Advertisements must reach this office
FIRST POST FRIDAYS
for insertion in the following Wednesday's issue. Those received after this time will be inserted in the next issue.

PLEASE WRITE CLEARLY, and TO AVOID MISPRINTING OF STRAINS, NAMES AND ADDRESSES, THESE SHOULD BE WRITTEN IN PRINTED CHARACTERS.

Displayed Advertisements.

Ordinary Page, £8 15s. 6d.; Half Page, £4 7s. 9d.: Quarter Page, £2 4s. 0d.; One Column, £2 18s. 6d., Half Column, £1 9s. 3d. Quarter Column, 14s. 9d. One inch, 6s. 6d. Special Inside Pages, 25 per cent. on above rates. Cover and other Special Positions by arrangement. Discounts for Series. Full Scale of Advertising Rates on application.

Advertisements, addressed to Mr. S. H. BURLES, "EGGS," 94, FARNCOMBE STREET, LONDON, S.E.16, MUST REACH US BY FIRST POST FRIDAY MORNINGS, for insertion in following issue. Those received later will be inserted in the next issue.

A DEPOSIT SYSTEM has been adopted for advertisements, and Advertisers are asked to make full use of same. When remitting direct to the Editor on deposit, the full amount of purchase money should be sent, and six penny stamps extra to cover cost of acknowledgment of same Cheques should be made payable to the Editor and sent direct to The Beeches, Rudgwick, Sussex.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. — **R.I. Reds (first pens headed Cockerels direct Boucher), Runner and Khaki-Campbells. Eggs, Chicks, and Stock Birds. List free. Satisfaction insisted on.**

Eggs for Hatching: R.I.R.; best strains; limited number; 6s. 6d., 15 eggs.—Nanoose Poultry Farm, Wool, Dorset.

Eggs for hatching from good Utility Stock; various breeds; moderate prices. Please write for price list.—Arle Poultry Farm, Cheltenham.

Sittings of Buff Rocks, also Light Sussex, from carefully selected birds bred for stamina, type and productiveness; 6s. for 15, unreplaced. I have never had disease on my farm.—Lea, Tenoaks, Ringwood.

Sex-linked R.I.R. x Light Sussex. Sittings, 6s. for 15, no replacements. — Rosedale, Wadhurst, Sussex.

Aylesbury Duck Eggs, 7s. per dozen; carriage paid. — Churchberi Egg Farm, Gretton, Kettering.

Hobson's First Prize Utility Minorcas; eggs, 10s. 6d. 15. — Hobson, Wrentnall House, Pulverbatch, Shrewsbury.

BRITISH COLUMBIAN

White Wyandottes, imported direct; large eggs and stamina; winner several contests. Specialist 12 years. Mating List. —Read, Hutton Poultry Farm, East Grinstead, Sussex.

H. D. SIMMONDS, M.S.P.B.A.,
The Abbey, Thorpe-le-Soken, Essex, regrets he is unable to accept any further orders for White Wyandotte Eggs this season, owing to exceptional demand. Please book early for 1927.

TOM MARKS and SON,
Oakhill, Somerset, offers Light Sussex and R.I. Red Eggs from trap-nested stock; records from 175 to 256 large eggs. All stock mated are true to colour and type, 12s. 6d. for 15, £3 10s. per 100; clears replaced. Satisfaction guaranteed. See testimonials from satisfied customers in Year Book advertisement.

WHITE WYANDOTTES.

The Sunnycroft strain have been bred on scientific lines, and trap-nested for fourteen generations. Eggs, 10s. and 7s. 6d. dozen.—Fred W. Wait, Sunnycroft, Burton Joyce, Notts.

HAYES POULTRY FARM,
Ashley Heath, Ringwood.
HATCHING EGGS.
7s. 6d. dozen.
1925 PULLETS.
White Wyandottes (Gunn - Wharton); March; 9s. 6d. each. Cash with order. — Capt. Roberts.

GOLD MEDAL STRAIN.

White Leghorns, winners of National Laying Test Section 2, 1925. Booking Sittings of Eggs; 10s. dozen.—Bingley, Balsham Manor Farm, Cambridge.

R.I.R's AND K.-C. DUCKS,
Meeking-Crowley and Wyndham Mallet direct.
SITTINGS (12 EGGS), 5s. to 10s. 6d.
20 per cent. discount after certain dates. Mating List post free.—Streatfeild, Chanters House, Pilton, Shepton Mallet, Somerset.

EGGS.

FOR SALE.

**Best White Leghorns Eggs; 6s. 6d.
no replacement. Cash with order,
riage paid. Name your nearest stati
A. Helliwell, Poultry Breeder, 4,
Parade, Mytholmroyd, Yorks.**

Orders now being booked for Sitt
from my prize-winning Utility White
horns and White Wyandottes; 15 eggs
replacements; 10s., carriage paid. —
Brentwood, Marple.

1,000ft. Altitude—yet Utility Cup
Gold Medal Winners (Registered
and records well over 200 for all bree
White Leghorn, Black Leghorn, R.I.
and Anconas. Built up from the
consistent laying competitors' blood
curable. Lists free.—Fentem, Chapel-
Frith.

Barnevelder Eggs (Middleman
Schimmel), Barred Rocks (Jackson),
Rocks (Taylor and Slater); 5s. 6d. d
carriage paid; boxes returned.—Bea
Braemore, Mauchline, Ayrshire.

Light Sussex Eggs; 100, 30s.; 50, 16s.
delivered. Chicks, 50, 40s.—F. Paynter,
Lawn, Lampton Road, Hounslow.

Anconas, Black, Brown and White
horns, Khaki-Campbell Ducks; all
strains; 4s. 6d. dozen; carriage paid
Dixon, Kempe's Corner, Wye, Kent.

Hatching Eggs; 7s. 6d., 15; from
fully selected trap-nested Black Legh
Red Sussex.—Mrs. Coldwell, Spring G
Milverton, Somerset.

Speckled Sussex. Sittings, 6s. 6d.
carriage paid; from good layers (
eggs). — Secretan, Swaynes, Rudg
Sussex.

Schimmell's Barnevelders; specia
mated; sound stock; no fancy prices;
6d. dozen.—Waterworth, M.S.P.B.A.,
field, Selby, Yorks.

Sittings White Orpingtons; good la
strain; 6s. 6d. per doz.; unfertiles repla
—Miss F. Meeson, Rettendon Place, Bat
bridge.

Eggs, 7s. 6d. doz.; 27s. 6d., 50; carr
paid; from trap-nested Utility Light Su
the only breed kept, on unlimited
range on Yorkshire Wolds.—Jack
man, Gardham, Beverley, Yorkshire.

White Wyandottes; large egg str
high fertility; 7s. 6d.—10s. 6d. sittin
Kapson and Simnett, Moor House, S
more.

Rhode Island Red Sittings (Bouche
from splendid layers; 6s. 6d.—Mrs. Fa
ner, Ightfield Rectory, Whitchurch, Sal

LIGHT SUSSEX. BLACK LEGHORNS

My pens contain only L2 hens,
trap-nested pullet year records over
2oz. eggs; mated to exceptional cocke
from L2 parents; strain, Bostock Sm
price, 10s. 6d. per sitting.—Full pedigree
application to Buckingham Booth, Cha
ticlere, Bournemouth.

CROAD LANGSHANS.

My Pens won Gold Medal at Bentley
years running. Sittings, 12s. 6d.—Simm
Midgham, Reading.

**WHITE LEGHORN EGGS
FOR HATCHING.**

None under 2ozs. 85 per cent. ferti
guaranteed; Hanson, Bennet and
strains: mated to cocks and cocke
direct from the Misses Ransford, Pens
to X. All breeding stock on virgin
Inspection invited; 6s. a sitting, 35s.
100; carriage paid.—Apply, Instow P
try Farm, Langton Matravers, Dorset.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, MARCH 17th, 1926.

Editorial.

THE LITTLE THINGS THAT MATTER.

(The following is part of a paper read before the Tewkesbury Branch of the S.P.B.A., which is reproduced here by request.—Editor.)

I want to place before you some very interesting figures in relation to the date of maturity—that is to say, the date when the first egg is laid—and production. Two flocks are segregated into three groups each, and were tested for a ten months' period. The groups were Early, Medium and Late, and the result was as follows:—

Early averaged 141 eggs per bird.
Medium averaged 114.2 eggs per bird.
Late averaged 90.9 eggs per bird.

The average mortality in the three flocks was: 3.6, 5.3, and 9.0 per cent. respectively. The "earlies" led in every month of the year, except January, when the "mediums" led by a fraction. The late-maturing birds were consistently behind from start to finish. Moreover, when the birds were culled, at the end of the test, only 12.8 per cent. of the early-maturing birds were rejected, against 30.8 of the medium and over 40 per cent. of the late-maturers.

The maintenance of a high average production is of the utmost importance to the commercial egg farmer. It is far more difficult to maintain a flock average of 160 than it is to breed a pullet which will lay 250 eggs. The higher the flock average, the less the cost of producing the egg, and equally the greater the profit. On most of our commercial egg farms the percentage of "duds" carried is far too high, and in these days, when the margin of profit is small, it is essential that not a bird should find a place in the laying house which is not likely to pay for its keep. I suggest to you that, on the majority of the farms, culling takes place too late—in fact, at a time when there is little to be gained by it, and that, if it is to be effective and profitable, it should be completed before the pullets, whether light or heavy breeds, reach the age of nine months. As it is, it is too often left over until the birds are double that age, or when they are in moult, which is neither effective nor profitable. As you are all more or less practical poultry-keepers, I need hardly allude to the culling which should begin from the incubator, and continue until the birds find their way into the laying houses. You will kill the weakly chicks, those which are slow to feather, which are pale and anaemic, those which develop "big wing," those gawky, yellow-faced individuals, with dried-up plumage, and those which are stunted in growth. You will not find that a difficult task, but when your pullets have reached the age when they are to be drafted into the laying house it is more difficult, and you feel you are sacrificing something; but it is a sacrifice well worth making, for it will lead to the continuous improvement of your stock if you adopt it each year. It all centres round that factor—Early maturity, and the fact that it is linked with prolificacy. That is why I brought to your notice the experiment I quoted at the beginning of this paper. When drafting those pullets into the laying house it would be a comparatively easy matter to ring those which show signs of early laying, as exhibited by the combs and wattles, and it would be equally easy to mark those which are very backward in this respect. You all understand that the comb and wattles are the secondary sexual organs and respond to the ovary. The next examination of these birds would be at the end of November; there would be a percentage then which would not have produced an egg, and these would be sold at once, and others which were obviously poor layers would share the same fate.

I can assure you this is the most profitable method of culling or selection, which ever you may choose to call it. It only needs common sense and observation, and it will mean considerably increased profit. Remember, your late-starter is nearly always the first to stop. Those are the birds which moult in July, while your early-maturing pullet will continue into September, and, moreover, she will produce more healthy and vigorous stock; so you gain in every way. Of course, some mistakes will be made, but you will find it will pay well.

QUALITY IN EGGS.

Now to turn to another subject. You will most of you have read the report of the recent Conference on Marketing. If you have done so, you will have seen that the distributors make certain demands.

(1) For more eggs in the autumn and early winter.
(2) For 2½ oz. eggs.
(3) For eggs of better quality; this referred to colour and density of yolk.
(4) For eggs with better shells.

With regard to the second, I venture to tell them it was not only an economic impossibility, but that if they demand the 2½ oz. egg they could not get the autumn and winter eggs in anything like the quantities they were getting them now. But as to the quality, particularly as to colour and density of yolk, we can do much to meet them. Colour of yolk is not a difficult problem. There are some hens which are constitutionally unable to lay anything but a pale-yolked egg, but these cases are rare. With a little attention to the feeding you can always get a good-coloured yolk; plenty of fresh green food and 50 per cent. yellow maize as the grain feed will always give you that, as will the inclusion of clover and alfalfa meal in the mash. You know we produced eggs at Wellingham with perfectly white yolks by withholding all green food, giving nothing but wheat, oatmeal, rice and milk. As to the texture of the shell, the chief failing here occurs during the spring months, in what we will term the "natural laying season." You cannot overcome this difficulty by supplying oyster shell or shell-forming material in any form, but you may do so by care in feeding, withholding a certain percentage of animal food, and, with birds on free range, giving none at all. It is simply a question of the birds laying too many eggs, and being unable to assimilate enough lime to shell them. It only occurs with good producers. If a little more care were exercised in this respect during the flush months, there would be fewer thin-shelled and shell-less eggs, less complaints of prolapsus, layers' cramp, and ovarian trouble generally. It is a serious matter for the distributor because of the number of breakages which occur.

(To be Continued.)

INCOME-TAX.

A Case of Interest to Poultry Farmers, heard in the High Court of Justice, is reported on another page.

DEVON COUNTY EGG-LAYING TRIALS, 1925-1926.

Report for the Fourth Period—January 7th, 1926 to February 3rd, 1926.

The trials are established at Kerswell Barton, near Exeter, and consist of 40 pens of five pure-bred pullets per pen, divided into two sections, viz.:—Light Breeds and Heavy Breeds.

The pens of birds are housed separately in houses of the double type, each half giving four square feet of floor space per bird. Grass runs measuring 12 yards by 10 yards are provided for each pen of birds.

The site is 100 feet above sea level, exposed to south and west. The houses face south east; the soil being a light sandy loam.

The weather during the period was of variable character; rain, sleet or snow fell on 18 days.

The total number of eggs collected was 454 in excess of the third period. There was a total absence of broodiness during the month, while the birds in moult amounted to seven.

The health of the birds continues excellent.

The total number of eggs laid to end of fourth period are graded as follows:—

Light Breeds (75 Pullets).—During fourth period: Specials, 500; firsts, 396; seconds, 375; non-scoring, 11.

Heavy Breeds (125 Pullets).—During fourth period: Specials, 746; firsts, 484; seconds, 538; non-scoring, 23.

Winners of prizes for the winter period of four months. Figures are Eggs and Points respectively:—

Light Breed Section (Five pullets per pen).—Mr. H. C. Wood (W.L.), 382, 3700; Mr. G. K. Simmons (W.L.), 355, 3050; Miss Hey and Mrs. Robertson (W.L.), 284, 2660.

Heavy Breed Section (Five Pullets per pen).—Brig.-General M. E. Richardson (W.W.), 374, 3700; Mr. G. V. Thompson (W.W.), 346, 3314; Mr. H. C. Wood (W.W), 375, 3207.

White Wyandotte No. 165 has laid a total of 88 eggs, all of special grade.

Commercial Poultry Farming.

By T. W. TOOVEY.

IV.

We have on this farm, unfortunately, more than one type of house, so I base my remarks on experience. Besides the 30 ft. x 14 ft. house, there are similar houses 50 ft. long. These are quite satisfactory, except that the 100 bird flock almost invariably gives better results than the 175; also the smaller flock is more easily inspected and controlled. We have fourteen houses (the first of the large houses ever built of the large type) that are 35 ft. x 20 ft. The floor space is the same as in the 50 ft. x 14 ft., but the results are not so good. A very observant poultryman on his own initiative only the other day said, "I don't know how it is, but try as I will I cannot get as good results from those deep houses as I can from the narrow ones." These houses were built in 1912, and are the most substantially built of any, with roofs composed of stout boards, covered with two thicknesses of felt, whereas all the later type of houses, 14 ft. wide, have only batten and felt roofs. It is probably purely a question of lights and ventilation. In the case of the deep houses, which at first were not fitted with back ventilation, it was found impossible to keep birds in them until back ventilation had been supplied, owing to the roupy colds, and ordinary roup that became chronic. These disappeared afterwards. I am sorry, therefore, to see that the Poultry Institute is advocating **square** houses 25 ft. x 25 ft. In this valley I feel sure they would be a failure, although no doubt suitable for a very cold, dry climate. We have had experience of other types of houses besides the long and narrow open-fronted house. We have one large span-roofed house and five houses, the height is 5 ft. in front and 3 ft. at back.

These houses were originally built for ducks. When I gave up ducks I at first intended to convert them to the ordinary lean-to; I simply refitted them as they were, adding the windows. They have this advantage, that the perches can be raised higher than in the other, also for those who must have manure boards, they are far better suited than the high in front and low at back lean-to. The fault of the ordinary lean-to, if fault it be, is that it is not suited to manure boards at all, as they necessitate the birds being placed too near the roof when at roost, and make it almost impossible to have any back ventilation.

This is a very good type house, and probably more suited to a windy situation than the ordinary lean-to, and will be found much more profitable than the Apex, but, if I may say so, I think it should be made a little higher than 4 ft. in front. Summing up all this, the conclusions I have come to, and they are also the conclusions of my experienced poultrymen, are that the 30 ft. x 14 ft. house with its hundred-bird flock is the best house, and the best unit of birds we have, both for profit and management. We see no advantage in the span-roofed for our requirements.

We still prefer manure-pits to manure-boards, but are reformed characters in the matter of cleaning out. During the winter every occupied house is completely cleaned out every three months, and the manure-pits are cleared every six weeks; in the summer the periods are four months and eight weeks respectively. The whole of the houses are sprinkled with Izal powder every fortnight. I see there is an idea afloat to keep birds warm in order to promote egg production in winter. No one, I presume, proposes that the houses shall be heated, therefore warmth could only be developed by conserving the warmth arising from the birds themselves or their breath—in other words, by checking the ventilation. This I do not think will do. I made one or two attempts of the sort in years gone by, and do not forget the consequences in the form of roupy colds and common roup. All we can do, and all I think the birds want, is shelter from rain and winds, and all draught that is compatible with free ventilation—the continual exchange of the inside air for that of the air outside. Here we have found it essential to have a little back ventilation even with the half-open front. The slats through which the birds drink are placed close to the floor level in the centre of the front of the house. These slats are 6 inches high by 2½ inches wide. Three or four of these do admit a considerable amount of air, and theoretically should check down draughts. A flap on hinges is hung over the water vessels to keep the sun off and protect the birds from beating rain when drinking. These may play a greater part in preserving correct ventilation than might be at first assumed.

It always appears to me that the ordinary manure-board is calculated to interfere with natural ventilation undesirably. The second hood on the other hand (the hoods then being on the louvre system) may, and probably does, assist good ventilation without causing down draughts. We all know that in ventilating a room the window open only at the top will cause a down draught, when, if open a little at the top and bottom the draught is not felt. Therefore I think in designing the ventilation of a poultry house some arrangement should be made for air to enter low down to replace that passing away above. I have emphasised this matter of ventilation because I know how sensitive all birds are to an impure atmosphere.

The material required and the present cost of the same for a house 30 ft. long, 14 ft. wide, and 8 ft. x 5 ft. high, appears below. The labour costs of building and turning out completely fitted should not exceed £6 per house. The amount of material is ample, providing care is observed in ordering the lengths suitable and so avoid waste in cutting: —

	£	s.	d.
7 Square Feather-edge Boards at 13/6	4	15	6
2 Square Plain Boards, ½ in., 10/-	1	0	0
450 ft. run of 2 x 2 Quartering, 9/- per 100	2	0	6
1,000 ft. run of 2 x ¾ Slate Batten	1	10	0
200 ft. of 1 x ¾	0	4	0
2 Bundles Plasterers' Laths, 3 ft.	0	8	0
4 Rolls Superfelt, 2 ply	3	4	0
12 cwt. Cement	2	8	0
2 yards Sharp Sand	1	0	0
Nails, Tar, Hinges and Wire Netting, estimated ...	1	10	0
Labour	6	0	0
	£24	0	0

Allowing another £1 for contingencies, the cost of the house may be put at £25, or 5/- per bird. If, however, a large number were to be built an appreciable saving could be effected by buying the timber in a large quantity to be delivered direct from the docks.

BERKSHIRE EGG-LAYING COMPETITION.

REPORT FOR THE FOURTH PERIOD—Jan. 7th to Feb. 3rd, 1926.

Compared with last period an increased yield of 624 eggs has been recorded during the fourth period, the total number laid being 2,292, of which 1,016 were special grade, 631 first grade, 691 second grade, and 54 non-scoring eggs. This gives an average per bird of 11.8 as against 8.4 for the third period. Light breeds averaged 10.8 and heavy breeds 12.3.

The highest number of eggs produced on any one day was 106 (on January 13th), and the lowest 57 (on January 22nd).

Comparing egg averages for the four periods of birds sent to the trial by poultry farmers, general farmers, and cottagers, we get respectively the following figures:—38.6, 26.4, and 24.5, and better selective breeding on the part of the poultry farmers, or a keener discrimination as to laying qualities of birds selected for the test may supply the explanation.

There are still 12 birds to lay their first egg.

There are 26 birds which have laid 60 eggs and over up to the end of the fourth period.

Weather conditions have been characterised by much rain, but the temperature generally for the period has been fairly high.

Below is a list of the two leading pens in each section. Section 1 remains the same as last period; Section 2, the positions are altered, and in Sections 3, 4, 5, 6, the positions for first place remain the same as last period, but second place in each section is altered. Many changes in the lower pens have taken place.

Section 1—Poultry Farmers (Light Breeds).—N. A. Ramsden, Hinksey Hill, Oxford, Pen 2 (W.L.), 1,906 pts.; Capt. P. Washington, Wokingham, Pen 5 (W.L.), 1,676.

Section 2—General Farmers (Light Breeds).—Admiral Clifton Brown, Faringdon, Pen 7 (An.), 1,656 pts.; C. E. S. Gillett, Wokingham, Pen 8 (W.L.), 1,647.

Section 3—Light Breeds (Cottagers)—Single Birds.—J. Wentworth, Uffington, Bird 70 (W.L.), 490 pts.; B. Butler, Newbury, Bird 63 (B.L.), 302.

Section 4—Poultry Farmers (Heavy Breeds).—Capt. D. W. Gunston, M.P., Spencers Wood, Pen 17 (W.W.), 2,587 pts.; L. Brummell Smith, Embrook, Pen 23 (W.W.), 2,498.

Section 5—General Farmers (Heavy Breeds).—Gore, W. H., Hungerford, Pen 33 (W.W.), 2,680 pts.; Capt. T. Allen Stevens, Faringdon, Pen 31 (W.W.), 1,976.

Section 6—Cottagers (Single Birds)—Heavy Breeds.—Miss Hayhow, Shaw-cum-Donnington, Bird 254 (C. Lang.), 753 pts.; J. Rackstraw, Mortimer, Bird 248 (R.I.R.), 381.

H. ROBINSON, County Instructor in Poultry Management.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

" BODIES " for post-mortem examination should be sent to Major C G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.

Bodies should be packed and sent by post immediately after death. marked for immediate delivery. The fee is 5s. for a reply by post The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

"Pure Novice" (Ayrshire) writes: " As a two years' reader of 'Eggs,' I see very little about ducks and their egg-laying performances, and as I am a pure novice, I ask your opinion of a small flock of mine, this being the only poultry or fowl I have. I purchased at the latter end of 1924 six Khaki-Campbell ducks, pedigreed, and advertised in 'Eggs.' They started to lay on January 8th, 1925, and have never halted since. In the flush season I was getting four, five and six eggs per day, and one day seven. As there was no sign of them resting I started on the 1st October to mark down their output. For October they laid 84 eggs—an average of 14 per duck for the month. November, 39 eggs, average 6.5; December, 54 eggs, average 9; January, 57 eggs, average 9.5. For February up to the present 24th I have got 68 eggs, getting three and four per day for last few days. I notice the Wye College Test ducks for December and January periods only averaged 5, 4.7, and 6.02 respectively. Have I been fortunate in getting a good laying strain? They are reared in a very exposed position 800 feet above sea level. Would you recommend breeding from them this season, having purchased drake closely related to Crystal Palace winning sire, and laying test winning dam, as some of my neighbours are wanting me to sell sittings from these ducks. What would you consider a fair price for a sitting of 12 eggs?"—I think my correspondent has some very good ducks. Of that there is no doubt, and I cannot quite understand why he has asked my opinion. Certainly, such production is most satisfactory from the above breeding pen. As regards the price he should ask, I always find that depends upon the neighbours who are willing to buy. At any rate, I do not think he would be wrong if he asked from 7s. 6d. to 10s. Some, of course, will want to buy them at a lower price. Perhaps if I gave him a little business advice it would be to get as much as he can.

R. F. (Keighley) writes to say that most of her pullets have had roup; 13 of them died, and the remaining 90 are cured. A few of them did not get it. The outbreak started early in November, and they are now laying again, and she would like to know whether these birds are likely to get it again next winter, and whether I advise killing them off at the end of the summer. How would I free the house and run from the infection if they were to clear the birds out of it? If she moves the birds in the present house and run could they catch roup again from re-infection from the house and run? They have not very much room, and cannot move the birds into another house while disinfecting the present one. Would it be wise to kill off these pullets, and in place of them keep the two-year-old hens on another year, so as to keep the egg yield up during next winter and spring?—If "R. F." had sent me her full name and address I would have replied by post, as she is a member of the S.P.B.A. Now, in answer to her questions. I do not think these pullets are likely to get roup again, as after one attack there is generally a certain degree of immunity, but I think there might be a little selection, and those which have only had a mild attack it would be unnecessary to kill. The birds which have had a severe attack, and have survived rather than recovered, I would kill. As to freeing the house and run from infection. The house should be thoroughly sprayed out with a strong solution of Izal, and then thoroughly lime-washed, preferably with a spray, as this means that the lime will get into every crevice and corner. As to the run, I would almost advise my correspondent to keep the birds intensively from now onwards, or at least for a few weeks. Dig the run well over and lime it, and then sow it out with rape or mustard. If this could be managed, and the birds confined to their house for, say six weeks, it would most effectively clean it. In reply to her third question. If the birds are moved in their present house and run they are not likely to catch roup from re-infection from the house or run, but I would suggest to my correspondent that she particularly examines the house to see whether it is well ventilated, or whether it is draughty; otherwise if she starts again next season, and has another outbreak, she will be inclined to think the birds caught the infection from the house, whereas it would be due to faulty ventilation or a draughty house.

G. H. S. (Egremont) writes that he has recently returned from abroad, and he is anxious to take up poultry farming. He knows absolutely nothing about the business. He possesses patience, average ability, and is a hard worker. If possible, and the district is suitable, he would like to start in Heswall, which is a few miles from his present address on the Wirrall Peninsula. He wants advice on the following points:—(1) What land he should select? (2) Whether the district mentioned is suitable? (3) Is it advisable to go in for good laying breeds at first? (4) Is it advisable to take some tuition on a poultry farm first of all? (5) How to go about it generally?—I am entirely in the dark as to advising my correspondent, but I will answer his questions. The land to select should be dry and preferably of light loam, with a slight slope to the south. (2) The district mentioned, I think, would be suitable, as good markets would be available. (3) Yes, he should go in for good laying breeds at the first. It is no good starting with inferior stock. Good stock would not necessarily mean expensive stock. (4) It is most advisable to have some tuition before starting, and he should spend at least twelve months on a good practical farm, more particularly should he be there during the incubating and rearing season. I hope that my correspondent will dismiss from his mind the idea that the poultry industry is the one industry where the "fool of the family" can succeed, and will appreciate that it will need all his ability, energy and patience to make a success of it. Further, I would advise him to cultivate the bump of observation, for in no business, to my knowledge, is it more necessary. His last question: "How to go about it generally?" is too general a one for me to answer here. There is the question of capital. What capital has he available? He must not expect an immediate return on his outlay, and he will have to live. He must not make the mistake which is so common amongst beginners of having no reserve to fall back upon. I hope he will not be offended at my bluntness, but it is so sad to see so many people who believe that the poultry industry is the simplest way of making a livelihood, and I want him to fully realise that there is no industry in which he will have to work so hard.

G. B. (Chard) wants dry mash formulae for day-old chicks, and up to laying stage, and formulae for first and second chick feeds, the formulae to be composed of bran, middlings, maize meal, ground oats, fish meal, and alfalfa meal. He should start the chicks from six days old to eight weeks on the following mash:—21lbs. bran, 10lbs. alfalfa meal, 35lbs. middlings, 21lbs. Sussex ground oats, 14lbs. maize meal, and 8lbs. fish meal. From eight weeks until five months old they should be put upon the following: 3lbs. bran, 4lbs. middlings, 1lb. Sussex ground oats, ½lb. maize meal, and ½lb. meat and bone meal. After which they should be placed upon the following layers' mash:—7lbs. clover meal, 7lbs. bran, 56lbs. middlings, 14lbs. maize meal, 14lbs. Sussex ground oats, and 14lbs. fish meal. The formulae for the No. 1 chick feed is:—42lbs. finely kibbled wheat, 35lbs. fine maize grits, 28lbs. split groats, and 7lb. canary seed; and for the No. 2 feed:—1lb. whole groats, 3lbs. small red wheat, and 2lbs. kibbled maize.

New Reader (Norwich). The condition of the chicks you describe leads me to think that it is a case of malnutrition due to bad brooding or over-crowding. "Big wing" chicks are always better killed, as frequently there is tubercular disease. However, as you want to treat them, and I have said what you expected me to say, I will try and tell you how to proceed, having at the same time no sympathy with what you are going to do. The first thing is to give the chicks a warm airy brooder; then they must have easily digestible and nourishing food. Give twice daily bread and milk prepared in the following manner:—Pour some milk in a basin, and force in as much bread as will absorb it, so that when it is broken out it is in a crumbly moist condition, one feed of biscuit meal scalded, and dried off with Sussex ground oats, and one feed of cooked wheat and groats. In addition to this mix a quarter of a teaspoonful of cod liver oil with the biscuit meal, and give sulphate of iron in the drinking water. Finely-chopped green food, preferably water-cress and onions will also be a great help. This advice is given against my better judgment, as it would be much kinder and wiser to kill the poor things.

S. P. (Oxford). I am afraid I can't help you much. It is a question of rest and recuperation. You forced the pullets too heavily, and now it is a question of temporary exhaustion, and this probably explains the moult. You see your mash was forcing in itself. That is, it was too stimulating, and when in addition to this you were feeding under artificial light, it was a case of burning the candle at both ends, and the birds collapsed. You might give them an iron tonic, and make a mash as follows: —Alfalfa meal and bran, one part each; middlings, four; ground oats, two; fish meal, half part; and dried yeast, half part. These parts are by weight. I would also give them sprouted oats just germinated as the grain feed. Don't sprout the oats until they are green, but just until they begin to germinate. Give them one ounce of these daily, and the same quantity of wheat. Don't give maize at present; two teaspoonfuls of cod-liver oil to each pound of mash would also help. Your first indication that anything was wrong was the number of thin-shelled and shell-less eggs, and the pullets going off their legs. I think you will agree that you ought to have seen the necessity of pulling up then.

D. M. (Cornwall). Your losses are comparatively small, and I see no reason for alarm. To have reared 145 chicks to six weeks old, and only to have lost eight per cent. is fairly satisfactory. The fact that these chicks which have died have in nearly every case had their crops filled with grain is no good reason for changing the chick feed. This is a common symptom with sick chicks, and is only a case of arrested digestion. From what you tell me I think it is possible that the chicks were crushed. It would be wise to pack the corners of the brooder to prevent their getting into a wedge, as many good chicks are lost from this cause; usually it is the best that are crushed. (2) You may tell your friend that he need not worry; unabsorbed yolk is not evidence that a chick died from B.W.D. It is common with all complaints with young chicks, and is again a case of arrested digestion.

W. H. W. (Hutton Cranswick). I regret we could not answer your letter by post, as you are not a member of the S.P.B.A. In answer to your question whether it is possible to make a living with 2½ acres of good grass to keep nothing but fowls and sell eggs for eating. I should say no; it would be a bare existence, even if you were fairly well experienced. The number of eggs you could turn out on 2½ acres would not be sufficient to enable you to make a decent livelihood. It would be rather late to start this season to get an incubator and breed. In any case I would not advise you to hatch any chicks after the first week in May. You might hatch light breeds at once. Yes, you could become a member of the S.P.B.A., and particulars have been sent you by post. I may say definitely in reply to your last question that if you buy the place clear of mortgage, and have two or three hundred pounds capital, that would not be enough to start on. Your capital would be absorbed in a very quick time, and you would have nothing to live on. You must realise that you cannot start poultry-keeping on a scale sufficiently large enough to enable you to earn a livelihood with two or three hundred pounds as capital.

J. E. (Wombwell). I regret that as you are not a member of the S.P.B.A. we cannot reply to your query by post. I am afraid there is not much we can do to help you with the blood streaks in the eggs. The following is the explanation:—When a hen is laying heavily the ovary is plentifully supplied with blood to promote the rapid formation of yolks. When a yolk sac ruptures to release a yolk, some blood may escape from a congested blood vessel in the sac. The blood passes into the oviduct with the yolk, where it becomes surrounded by albumen and incorporated in the egg. Sometimes the blood-spot is in the white or albumen. In that case it is due to a ruptured blood vessel in the oviduct.—I think you would be well advised to change your feeding somewhat. Give a mild dose of Epsom salts, and use the following mash:—2lbs. bran, 4lbs. middlings, 2lbs. ground oats, and ½lb. meat and bone meal. As a rule these matters right themselves.

W. H. (West Town) writes that he has lost two batches of chicks from Coccidiosis. He thinks that the breeding stock must be carriers, and as he has further batches coming along wishes to know if it will be a safeguard to give catechu as soon as they are hatched. He also asks whether it is possible to blood test his own stock, and whether cock birds can infect the eggs. In answer to his question it does not necessarily follow that his breeding stock must be carriers, as the ground may be infected. Catechu would do something to prevent the spread of the disease, but it cannot be looked upon as an actual safeguard. There is no blood test for Coccidiosis, and cock birds cannot infect the eggs.

C. L. (Stewarton) has a White Wyandotte pullet hatched mid-March, which started laying on November 12th. She laid 50 first-grade eggs to January 30th, and my correspondent wants to know whether she is worthy of placing in the breeding pen. Presumably he is referring to her late start? One would not call this a very late start, and certainly such a bird should find a place in the breeding pen. If her annual record is good, she is a bird that I would reserve for cockerel breeding, as by so doing we should obviate that precocity which is the downfall of many strains, as she may be described as an early maturing bird—that is one which matures at an economic age. At the same time we should preserve size of egg. Of course, my correspondent will have to consider other factors before definitely deciding to include her in the breeding pen. One must always take into account, when there is delay in the production of the first egg, another factor, and that is rearing, which is quite apart from the inherited factor, early maturity.

POST-MORTEMS.

F. S.—The post-mortem examination of the duck showed that the cause was phosphorus poisoning, so I presume that they had obtained a bait laid down for rats, which the latter may have carried from its original place of placing.

J. O.—The post-mortem examination of the chicks showed that they were the victims of an exceedingly heavy infestation by the "gape" worm, syngamus trachealis. Treatment consists in attempting to produce the expulsion of the worms from the windpipe and bronchi, and this may be effected in the case of small chicks by placing them in a box with a little lime sprinkled on the floor, and dusting in among them, so as to make a cloud, and promote coughing, a powder composed of finely powdered camphor, one part; powdered chalk, three parts. Older chicks may be subjected to the fume of crude carbolic acid, evolved by pouring some on a hot shovel or brick, the inhalation being continued until severe coughing and choking occur, but short of suffocation. Thorough disinfection of the floors of the houses is necessary to prevent reinfection, and the soil of the runs should be liberally dressed with salt, and, if possible, the birds should be placed on entirely fresh ground, the tainted soil being given a rest from birds for a year.

P. McC.—The cause was peritonitis, due to the decomposition of the unabsorbed yolk sacs. The main cause of non-absorption is the too early feeding of the chicks, and of a too generous diet during the first week of life.

Correspondence.

STOCK POULTRY LAYING RECORDS.

To the Editor of "Eggs."

Dear Mr. Newman,—Your issue of last week contained the Ministry of Agriculture's English and Welsh Stock Poultry Laying Records Scheme, and I see that one of your contemporaries criticises this scheme in an adverse manner.

As one of the pioneers of laying competitions in this country I greatly regret to see the misunderstanding which exists in the minds of those who condemn the scheme before it has been tried, because they feel that laying competitions are doing all that such a scheme can do, and would be damaged by such a scheme.

There is ample room for both, and breeders will lose a great opportunity if they do not follow up the request which was made by the National Poultry Council to the Ministry of Agriculture for the setting up of such a scheme. The following extract from the "Canadian Poultry Review," which has this week come to hand, contains a valuable testimony to what the Record of Performance Scheme is doing for the Canadian poultry breeder in capturing our own markets:—

> "Canadian Poultry shipped to Denmark.
>
> "Record of Performance hens and cockerels ordered for B.C.
>
> "Ottawa, No. 20—A shipment of ten Record of Performance hens and three approved Record of Performance cockerels is to be made to Denmark by the Record of Performance Breeders' Association of British Columbia, for a price approximating 400 dollars, is one of the results of propaganda work being done for the sale of Canadian poultry breeding stock in foreign countries."

This is typical of what is being done, and we are losing a golden opportunity of retaining those markets which the present generation of poultry breeders have inherited. We must adopt modern methods to modern requirements.

Your contemporary refers to "an alternative scheme" as having been submitted and approved by the Laying Trials Committee of the National Poultry Council. As a supporter of that scheme, may I say that it is not an alternative? It is a scheme which will add very greatly to the value of Laying Trials, but it does not in any way become an alternative to a Record of Performance Scheme as put forward by the Ministry of Agriculture. There is ample room for both, and the industry needs them both.

Birds are sold and sent out of this country by many breeders who never enter a laying competition, and, as you have on more than one occasion stated, there is need for a guarantee of the stock before it is shipped to distant countries.

Buyers require some guarantee that when they are purchasing birds from long distances over sea they are buying something more than birds from a breeder who has had a pen of five or six birds, which have done well at a laying competition, but which may have no relationship to the birds which are being shipped.

The scheme which has been put forward by the Ministry of Agriculture is now before the industry, and it is for those engaged therein to make the effort to improve it and to get the scheme established, unless they intend to lose one of the best opportunities of retaining the purchasing markets of the World for Utility Poultry.

Yours truly,

P. HEDWORTH FOULKES.

NEW-LAID EGGS AND PACKING.

To the Editor of "Eggs."

Dear Sir,—Referring to the comment by the Medical Officer of Health for Bermondsey, and the statement in reply from the Ministry of Agriculture for Northern Ireland (as reported in "Eggs," 3rd March, page 138), it seems clear that while the Medical Officer of Health was referring chiefly to the condition of imported ducks' eggs from Ireland, the Ministry of Agriculture's statement in reply dealt with the regulations regarding the export trade in eggs generally, and *hens'* eggs in particular?

The Ministry of Agriculture surely does not apply the rule that "Eggs may not be washed" to *ducks'* eggs?

Every duck-keeper knows that ducks cannot be relied on to lay their eggs in nests, especially provided for that purpose, and even where they do so (and I have one pen of Aylesburys who always lay their eggs in the same spot), the birds will usually spoil the eggs before they are collected, and washing is absolutely essential.

It is at least admitted by the Ministry of Agriculture (England and Wales) in their Report on Egg Marketing (page 25) that the washing of ducks' eggs is held to be less harmful than the washing of hens' eggs.

If ducks' eggs are properly washed and scrubbed in clean warm water, *immediately after collection*, the shells do not suffer in the slightest degree, either by becoming shiny or otherwise. It is the cursory wipe-over or "spit and polish" method that detracts from the appearance of the duck's egg, and spoils its reputation generally.

Yours faithfully,

H. M. B.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

THE INTENSIVE SYSTEM.

Mr. Toovey was good enough to reply in last week's issue to my question on this subject.

I note in his first sentence he suggests that his remarks apply mainly to the large commercial poultry farm, on which the analysis of the costs of running a laying hen, lead him to conclude that the minimum number per man employed, must not fall below 1,000 head, to make the business worth while. He is writing for the capitalist poultry farmer. I must frankly admit that I am **not,** but even so, I fail to see his point, and I am convinced that as far as labour is concerned it would not be greater, and would possibly be less, with the intensive system than with the semi-intensive system. Further, although Mr. Toovey tells us he is running 6,000 birds on 33 acres of land, which is at the rate of 200 per acre, he will pardon me if I suggest that the method he is adopting is, I consider, overcrowding the land, for the reason that that portion which is in the immediate neighbourhood of each house must necessarily quickly become foul. The vast majority of the birds will not range to the extreme limits of the land, but prefer to roam about in the immediate vicinity of the house. Here again is the danger which I do not think is strongly enough emphasised where outbreaks of disease are concerned; that foul patch to which I have so often drawn attention in the immediate vicinity of the house.

Let me ask you once again to consider it after a heavy fall of rain, followed by a burst of sunshine on a cold day in February or March. How many of your birds at that period will be at the extreme limit of the land? You will find the greater majority of them basking in the sunshine on that filthy patch in front of the house, but Mr. Toovey and I are not endeavouring to score points against each other; we are simply trying to get at what is right, for, I hope, the benefit of our readers.

I consider that all the houses which have been built especially for the intensive system were wrong in principle; they were badly ventilated, and to this I attribute more than anything else the failure of the system.

May I ask Mr. Toovey one question in regard to the second trial—1910-11? I mean the sliding-roof house. Was he referring to what is known as the "City" house, in which about half a dozen birds were kept? If not, will he kindly tell us what the dimensions were of the house to which he refers?

Certainly, I do not propose to attempt to use a house which has to be adjusted to the ever-changing conditions of the weather, and a movable roof does not enter into my calculations.

With regard to his last attempt in 1914, this was the type of house which I most strongly condemned as being badly ventilated and altogether wrong in type. I contend that for a lean-to type of house to drop to 5 ft. at the back is in itself a mistake. It was almost impossible for the sun to penetrate to the back of such a house in most months of the year. Again, may I ask whether there was any glass at the back of the house? But now having gone so far I must, in justice to Mr. Toovey and to my readers, admit that my experience about the same period was the same as his, viz., that the birds kept intensively did tend to become anaemic-looking. However, here is a difficulty which I hope we shall overcome. Mr. Toovey is fighting disease even with his semi-intensively kept birds by the addition of a salt mixture to the mash, and I venture to express the opinion that we can overcome this difficulty in the same manner as regards the intensively-kept birds.

What is astonishing to me, however, is that it should be considered necessary to add this salt mixture, and I cannot quite understand where the deficiency arises with birds running only at the rate of 200 to the acre. The question of green food does not involve a greater difficulty with the intensive system than it does on the average semi-intensive farm in this country. I have visited dozens of farms this winter, and have found that they rely almost entirely on alfalfa or clover meal and what roots they can procure, not only for their pullets but for their breeding stock.

The point I have been trying to make is that the semi-intensive system has not proved such an unqualified success as to warrant our discarding or refusing further investigation of a system which does hold out some prospects of success. If I could only see better results from the semi-intensive system of keeping poultry, higher production, a lower mortality in rearing, less disease, I would not persist in attempting to place the intensive system on a sound basis, but the semi-intensive system is not an unqualified success. Although a few individuals may claim that they have made a success of it, they cannot claim as a whole that it has been a success.

For the present I will leave it at that, and will return to the subject later.

Meantime, I must again thank Mr. Toovey for his kindness and courtesy in answering my questions.

PHEASANT EGGS.

I occasionally get enquiries from members for pheasant eggs for hatching.

Are any of our readers able to supply? If so, I should be glad to hear from them.

This is not a definite promise of business, but I want to be in a position to answer enquiries when I get them.

SEX INDICATORS.

A correspondent sends me a typed circular, headed: "The Sex Indicator: The Marvel of Modern Times." Time after time these things have been exposed, and still it pays to advertise them, and deluded people are found to write testimonials.

The circular says that all persons interested in the occult should have one. How does it concern the occult? In the days gone by the movements of the needle were attributed to animal magnetism; that followed the much simpler, although not more satisfactory, explanation of electricity. Would one believe this?

> "You can leave the room, and have a lady or gentleman drink from a glass of water, and, on returning, with the aid of the sex indicator, will at once tell whether it was male or female who took the drink?

What happens then in this case? A hen lays an egg, which is collected by a mere man. Which does the indicator indicate—the femaleness of the hen, or the maleness of the man, which predominated? Or suppose a hen laid an egg containing a male germ which was collected by a lady, what will the instrument indicate? The price of the indicator is 1s. 6d. I remember a renowned professor of sexology, who advertised one at 17s. 6d. That was made of cork and tinsel. In my young days we did the same trick with a needle and thread. First we were told silk was necessary, but we soon discovered thread would answer the same purpose. You can get the same result with a piece of stick with a piece of string passed through it. We exposed this thing six years ago in these columns. It has been tested, both in this country and America. It is simply a case of auto-suggestion.

A PECULIAR CASE.

Mr. R. Tellam Hocking, writing from Bodmin, says that on February 13th a clay pigeon shoot was held in the field adjoining his poultry run. The birds were seen to pick up the lead shots. Now some have gone off their food, and appear crop-bound. He has opened one bird, and in its gizzard found quite 50 lead shots. He asks me if I can kindly tell him how to treat the birds. This is a most unusual case, and treatment will be difficult, and I doubt whether it would be effective. The only thing that can possibly be done, I feel, is to give the birds large quantities of milk to drink, or even to give each individual white of egg. As far as I know there is no other treatment; or, perhaps, a teaspoonful of sweet oil, in addition, twice daily would be helpful.

Correspondence—Continued

WIRE NETTING.

To the Editor of "Eggs."

Sir,—May I give you my experience in buying a roll of wire netting.

When one buys in large quantities, favourable terms can generally be arranged, but in this case I only wanted one roll—particular height, mesh, and gauge, and had to be B W.N.A.

The prices in an area of 15 miles were: 29/6. 25/6, 24/6, 21/6, 20/4, and each shop assured me that there was a standard which they had to abide by—strange!

Yours, etc.,

"NEVER BROODY."

DAY-OLD CHICKS.

To the Editor of "Eggs."

Dear Sir,—With reference to your reader's complaint in last week's "Eggs," regarding day-old chicks travelling so badly, perhaps the method of packing we adopt might be of interest to some of your readers, as we have been sending out day-old chicks for four years now, and have *yet to receive a report of any arriving dead.*

In the first place, we only send out chicks that are thoroughly dry. These are packed in wooden boxes, on the bottom of which we place a piece of flannel or cloth. A nest of hay is then made just large enough to accommodate the chicks in comfort. We allow no room for movement, and the corners are well packed with hay, and the nest of hay is made the *full height* of the box. Over the chicks we place another piece of flannel—the piece being large enough to overhang; the lid is then tacked on, and the edges of the flannel trimmed off. We usually send a wire to clients, advising time of train by which they are despatched.

MARKING EGGS. A fairly large egg farm used to mark their new-laid eggs with the name of the farm. At the request of customers they discontinued doing so. To their surprise one autumn they saw a number of their eggs stamped and displayed for sale in a shop. They came to the conclusion these had been bought when eggs were cheap, and put in cold storage, and produced for sale when prices had risen.

LIGHT *versus* HEAVY BREEDS. No doubt there are many farmers who swear by either one or the other. Personally, I am all for the heavy breed. I find Light Sussex do extremely well, either intensively or on free range. We have had up to 13s. 6d. per couple in the local market this year for old hens. We have also broodies mothering from 20 to 30 chicks each, and the chicks outdoing any under hovers. My show bantams are all hatched under Light Sussex. I have had a hen cover 30 bantam eggs without smashing one. There is no doubt it gives chicks a flying start if they can have a few weeks with a hen, and they rarely fail to take to them after they have been broody a few days. When a month old the chicks can be put in a brooder, and the hens sold, but if you have not a fair number of heavy breeds on your farm you cannot do this. If you live near a market you can always sell a hen and a batch of chicks at a fair price. These are very popular during April and May amongst farmers, and it is a good way of selling hens that have finished giving you a profit from eggs.

(Continued at Foot of Previous Column).

L. G. M. WHITBY.

Modern Poultry Feeding

By TOM NEWMAN.

THE LITTLE THINGS THAT MATTER.

I will attempt to reply to a question which is very often asked me, particularly since the S.P.B.A. Food Scheme started. "How long is it safe to store food?" Now that question is on a par with another one: "How long is it safe to keep eggs for incubation?" It is not a question of time. Food deteriorates when stored, it loses much of its nutritious qualities; it becomes stale and unpalatable, and palatability is a great factor in successful feeding. All meals contain more or less moisture. When they are tightly packed they become heated, then mould forms, and mouldy food causes that very common and fatal disease known as Aspergillosis.

I get samples of weevily grain sent me, with a question as to whether the weevils are injurious to the hens. Now they are not injurious to the hens, but they have deprived the grain of much of its nutriment, and so the hen gets less. "Smutty" wheat is often offered. It should never be used, as it is likely to cause serious digestive trouble. So many people seem to think that any damaged grain is good enough for poultry, and a greater mistake cannot be made. In buying meat or meat and bone meal you often get samples with a very high percentage of oil. The oil in itself is not injurious, as is the case with fish oil, but if stored for any length of time it often becomes rancid and unpalatable, with the result that there is a smaller consumption of food and a consequent drop in the egg yield. Fish meal is a valuable food, but nothing is more injurious than a sample containing an excessive amount of oil. In several cases it has caused serious digestive trouble, with the result there has been a big drop in the egg yield, and on some occasions a slight mortality, and many times the birds have been thrown into a partial moult. It is not advisable to use a fish meal containing more than 5 per cent. oil.

I am often asked as to Palm Kernel Meal. It appeals to many people because it is cheap. We used a great deal of it during the war. It is not very palatable, and the birds took some time to get accustomed to it. When the chemically extracted was used it frequently caused the birds to scour badly, probably because of the chemicals used in extracting the oil. It is a food I would never recommend. Kibbled maize, in spite of a slightly higher cost, is more economical than whole maize—a higher percentage of it is digested, and it is more rapidly digested, which is a matter of great importance in the case of heavy producers. Yellow maize is superior in feeding value to whole maize, and will give a far better coloured yolk, but exhibitors of white birds should not feed yellow maize.

I am convinced that the failure to produce the winter egg is in a greater measure due to the inability of the pullets to consume enough food during the short winter days. Feeding by artificial light has demonstrated that we are too much the slaves of the idea of the two ounces of grain and two ounces of mash. Now several of our members have followed my suggestions that better results would be obtained if we trough-fed the grain during the short winter months. A handful of grain is not enough for a pullet which is going to spend from fourteen to sixteen hours on the perch at the coldest time of the year. The reports which I have received have, in nearly every case, been favourable. Trough feeding of grain has resulted in increased production, and it has also done much to stop the moult of the early-hatched pullets. I do not advise it all the year round, but certainly from October to the end of January it is a great advantage. Another factor is successful feeding

(Continued at Foot of Column Next Page).

S. P. B. A.

Food Purchase Scheme.

IMPORTANT ANNOUNCEMENT.

THE COUNCIL OF THE S.P.B.A. HAS PLEASURE IN ANNOUNCING THAT ARRANGEMENTS HAVE NOW BEEN MADE WHEREBY MEMBERS CAN BE SUPPLIED WITH FOODSTUFFS AND THE S.P.B.A. MASHES FROM ALL THE VARIOUS DEPOTS, IN LOTS OF 1 CWT. F.O.R., BAGS FREE.

MEMBERS CAN BE SUPPLIED AS FROM THIS DATE.

FULLER PARTICULARS WILL BE FOUND IN ANOTHER PART OF THIS ISSUE.

TOM NEWMAN,
SECRETARY.

YEAR BOOKS.

THE BARNEVELDER.

Members of the Barnevelder Club may be well pleased with their Year Book, and congratulations are due to those responsible for its production.

We note the Hon. Secretary reports that they have again had a successful year, and there are many signs of the continued popularity of the breed and a constantly increasing interest taken.

Might I here again suggest that the Club do all they can to discourage utility classes at the Shows, and breed for one standard. The division of Utility and Fancy Standards at this stage in its career is certainly not conducive to the popularity of the breed.

The President's note that the Club issues certificates for records of 170 and over at Laying Tests, and his remark that during the past year he had the pleasure of signing not a few for records of 200 and over is encouraging, and will be most helpful to the breed. May we suggest, however, that, coupled with these records should be a stipulation that the competitors should comply with the Club Standard.

Mr. Fletcher Hearnshaw, in his article on "The Dual Purpose Barnevelder," asks the question point blank: "Why discriminate between Exhibition and Utility in the Barnevelder?"

Mr. Powell Owen writes on "The Advantages of the Barnevelder for the Backyarder and the Little Man."

Capt. Moser, in his very interesting article, remarks that "the Barnevelder's existence, reputation and popularity rests upon the large brown egg; for this egg it was brought into existence, and by this egg it has deservedly won a great reputation and popularity. However keen we may be on colour and lacing, we must keep type in front of us first and foremost." Type counts 40, colour 30, and it should be so. Then he continues, "If you once lose your egg you have lost everything that has made the breed what it is."

It is up to breeders to keep up the size and colour of egg, and at the same time to increase production. Not a simple problem by any means, for there is always a tendency to lose both colour and size when you are breeding for production, and it will be far more difficult to retain that deep brown tint with increased production than it will even to maintain size. However, good luck to the Barnevelder!

THE BRITISH BLACK LEGHORN CLUB.

Mr. Birkhead, the energetic Secretary, remarks that he presents his annual report with great pleasure, and asks, "How can it be otherwise when we look back on the progress made?" Once again he has to report a steady increase in membership. A few members have dropped out. He complains that only six wrote to notify him that they wished to resign, while a number allowed their names to go into the Year Book "who did not intend to keep faith with us."

"Would it not be showing a far better sporting spirit if these members had acquainted me of the fact?"

Our sympathies here are with Mr. Birkhead entirely.

The book contains many interesting articles.

Mr. Moore writes on, "The Black Leghorn for Cross-breeding." He mentions the excellency of the sex-linked cross with the Barred Rock hens or Cuckoo Leghorns. He writes of the popularity of the cross of the Black Leghorn and R.I. Red, and can speak of the merits of this cross. I entirely agree with him here, but it is not a sex-linked cross.

Mr. Bruce Wilcock writes on the Black Leghorn Bantams, and mentions, "There are bantams in this country that have laid 200 fair-sized eggs, and that is on one-fourth of the food that would be consumed by the same breed of the larger variety." Some inducement then to go in for bantams.

There are "Hints on Mating," by Mr. Wilson Southwell, which would be invaluable to breeders.

Mr. Powell Owen writes on "Shows and Showing," and I like his remark that "In all breed operations, having got the laying point as a type, concentrate upon the head points." Only I count the head points as laying pointers, but it is sound advice he gives when he says, "Above all, study the only natural pose of the perfectly constructed birds—namely, head up, chest out, and back higher at shoulders than at saddle."

The Rev. J. W. Broadbent writes of Rose-comb Black Leghorns. One remark he makes is very interesting. It is, "But this breed—for I want to be quite fair—must be given time to mature. They are nearer the heavy than the light breeds in this respect, but they make up in starting with a marketable egg and by their staying qualities. All things of slower growth have greater endurance and strength."

The Club is in a very strong position, and should continue to exercise a beneficial influence upon the breed.

The Year Book can be obtained from the Secretary, Mr. Birkhead, price 1s. 6d.

THE WHITE WYANDOTTE CLUB.

I first note that five gentlemen were appointed to draw up a scale of points for judging, and, finally, they arrived at 25 for colour, 25 for type, 15 each for size and head points, and 10 each for legs, feet and condition. I would like to have seen another 5 given to type and headpoints, and would have deducted them from size and colour. However, that is a matter of opinion.

Mr. J. Carlton Bunting writes on "Creating a Market for English Poultry Abroad," his idea being that it would be of great benefit to the industry of this country if the showing of poultry, both fancy and utility, at foreign shows was facilitated and encouraged. I am afraid his suggestion that a bureau be started which should be in charge of a man conversant with foreign languages and also with foreign trade, who could supply the breeders of this country with all the information they require, translated into their own language, and at the same time would organise collection of English exhibits for foreign shows, and would arrange for the despatch of exhibits for foreign shows, and at the same time personally attend such shows on behalf of the English exhibitors in order to press for sales and trade generally is hardly practicable.

Mr. C. N. Goode writes interestingly on "Little Things that Matter in Breeding," and G. V. F. is good on "The Selection of Male Birds."

N. H. R. has a few words to say on "Judging to Standard," and makes the rather pertinent observation that there are a few points in the standard with which many big winners do not compare.

Mr. J. Wharton tells his readers how he hatches and rears without incubators or brooders. For his purpose he uses a Silkie-Wyandotte cross as ideal sitters and mothers.

There are some excellent photographs in the book, but the utility breeder would be inclined to think there is too much feather.

THE SUSSEX.

This is not a Year Book, but an excellent little brochure on the Sussex, by Mr. Clem Watson, who is Secretary of the Sussex Club and for many years a Club Judge.

We can strongly recommend it to all our readers.

There are excellent illustrations, and breeders would get a clear idea of type and colour.

Sussex Bantams are dealt with, and there is an interesting chapter on Table Cockerels and Culling.

The book can be obtained from "Feathered World," 9, Arundel Street, Strand, W.C.2. The price is 1s. 9d. post free, and it is a good investment.

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and the provision of sufficient hopper accommodation. Many pullets are underfed and non-productive from this cause.

With regard to the feeding of the chicks. We have traced a very high mortality in several cases to stale dry chick feeds. Some of it is held from one year's end to another by local corn merchants, and small poultry-keepers often get the stale food. These are all little points in the problem of feeding to produce eggs, which are well worth attention and are very frequently overlooked, even by men who have been at the game for years.

Duck Ailments.

By BERNARD REDDAWAY.

In this period of poultry history it seems only right to devote some space to a discussion of the various ailments which the duck is liable to suffer from. On every hand we hear of the researches that are being made, and the cures that are being found for the many diseases which attack the common fowl. But it appears that nobody is paying much attention to the study and cure of the illnesses that the duck is liable to acquire. The reason for this is that the duck is very much hardier and stronger than the fowl, and is therefore less liable to get ill. This is not quite the right attitude to take up, because if there should be an epidemic of some duck disease, such as Cerebro Spinal Meningitis, we will be quite unable to fight it efficiently.

The dreaded B.W.D., Roup, and Coccidiosis are the most feared diseases, but fortunately the duck is immune from them all. For this reason alone the duck is worthy of a place on every farm, but when this immunity is taken into consideration with its other wonderful economic qualities, it is surprising that ducks do not outnumber fowls. While appreciating the duck's freedom from the scourges that afflict the fowl (or, at any rate, the badly-kept or in-bred fowl), we must realise that the duck can, and sometimes does, become ill; and it is my object to write upon the causes and cures of the ailments to which ducks are prone.

Let us deal first of all with disease in general. Nearly every animal is constitutionally able to resist the attacks of the various germs which it takes in on every side. It is the direct result of civilisation that man is so prone to disease, and by wrong breeding and feeding we are weakening the powers of resistance in our domesticated stock. The human race may be content to sacrifice health for civilisation, but we cannot afford to reduce the strength of our domesticated animals, even if we get a slightly increased production for so doing. Science has found the means of curing most diseases, both in ourselves and our domesticated animals, but even if we can afford to pay for our own cures, we cannot make a profit from our domesticated stock if we have to treat them for any serious illness. It is therefore absolutely necessary to prevent a decline in the stamina of our stock. The duck's constitutional strength is nearly as good as it was when man first started to keep ducks, therefore let us by careful feeding and breeding prevent the duck from following the fowl in a general decline in health.

The following are the causes for a decline of constitutional strength in all kinds of poultry. I have placed them in what I consider to be their correct order. In-breeding, breeding from immature stock, bad feeding, very dirty conditions, very close confinement—these are about the only factors than can really affect the vigour of our live-stock. Unfortunately, loss of constitutional strength is hereditary, and so it is absolutely necessary to prevent any such weakness from appearing in the strain. No serious illness is likely to appear so long as the birds have plenty of their natural vigour, but directly this is impaired every germ is liable to find a home in them, and then all hope for a healthy flock must be given up. Always remember that old saying, "Prevention is better than cure."

Cerebro spinal meningitis is the most serious disease that ducks are capable of getting. The actual cause is a germ, but they do not usually take root in a duck unless certain conditions are present. This illness is very highly infectious, and pathologists inform us that it is possible for a duck or duckling to infect a human being with it. This is an added reason for doing all in our power to prevent our ducks from getting infected. It is not really hard to do this if the whole cause of the disease is understood, and measures are taken to prevent it. The germs of cerebro spinal meningitis will not as a rule make much headway unless the ducks are kept in badly-ventilated houses. It is probably correct to say that given proper ventilation ducks and ducklings can be kept entirely free from this disease. It is to be noted that cerebro spinal meningitis is very largely on the increase, and it is also noteworthy that every year a larger proportion of our ducklings are being raised artificially. How many brooder and brooder houses have enough ventilation? They may prove quite satisfactory for chicken, but it must be remembered that ducklings need considerably more air than chicken. I make a habit of rearing all my ducklings in span-roofed, open-fronted brooder houses, and never have I had a case of this disease. How often is a case to be found amongst ducklings which are being raised under hens in open-fronted coops? Very, very rarely we think. Dirt, of course, helps this as well as every other disease, but if the ventilation is good ducks will as a rule remain free even in uncleaned houses. Mature birds very rarely suffer from this illness, largely because they are as a rule housed, if housed at all, in open well-aired houses.

Another point which is not as a rule considered is that certain ducks are able, while being themselves immune, to transmit the germs of spinal meningitis to other healthy ducks. They carry the germs in their throats, and are capable of spreading them during the whole period of their lifetime. It is, therefore, most necessary to destroy, if the disease does not save the trouble, all the birds in an infected brood. It is not at all advisable to attempt a cure, because even if it is successful it is most likely that the cured bird will prove to be a carrier.

Now we come to the common cold and to that more serious illness, pneumonia. I am treating these two illnesses together, as it is usually a neglected cold which causes pneumonia. Now young ducklings are very susceptible to colds, and once they catch cold pneumonia is but a very short step. Therefore it is very important to take the necessary steps to prevent them from acquiring colds. When the ducklings are taken out of the incubator and brought to their brooder they must not be exposed to the cold air for even a minute or two. It is fatal to carry them in an open pail or basket. They must be put in a hay box, or day-old chick boxes will do very well, and not taken out until they are ready to put under the hover. Another cause of cold is to let the ducklings stay out of the hover for more than a few minutes at a time during the first week of their lives. If care is taken of the ducklings for the first ten days of their lives, it is unlikely that there will be any cases of colds or pneumonia among them. It is their susceptibility to colds which leads me to doubt the advisability of sending them for long journeys as day-olds. If the weather is warm all will be well, but if it is cold it is very probable that quite a number of the ducklings will die during the first week after their arrival. Nobody will be to blame for the loss, but the buyer will be rather disappointed, and most likely he will blame the breeder.

(To be Continued.)

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

Paterson, A., 6, Church Street, Kilmarnock.
Kelsall, J. R., "Sunnyside," Bay Horse, near Lancaster.
Carruthers, R. B., Greybury Farm, Edenbridge, Kent.
Cooper, W. E., "Apsley," Nine Mile Ride, Wokingham, Berks.
Potter, A. D., The Vale, Ketton, Stamford.
Smith, Col. A., West Croft, Seaford, Sussex.
Ireland, A. M. T., Great Burlings, Knockholt, near Sevenoaks, Kent.
Stevenson, E., Cheveley, near Newmarket.
Jibb, W., Bowthorpe, Harold Bridge, near Wisbech, Cambs.
Blackwell, L. B., Nicholas Hill, Henley-on-Thames.
Rodgers, T. W., 11, Chandler Avenue, Canning Town, E.16.
Davies, A. L., Dorglwyd House, Pontlasse, Morriston, Glam.
Brooke, W., 2, Eightlands Place, Bramley, near Leeds.
Greenslade, D. E., Chesterton P.F., near Leamington.
Upsdell, S. H., 112, Walmer Road, North Kensington, London, W.10.
Hubble, S. L., Paris Farm, East Malling, Kent.
Millard, A. D., 269, Featherstall Road, Oldham.
Davies, W. A., Homestead P. Farm, Monmouth.
Unsworth, C., 8, Wheatfield Street, Rishton, near Blackburn, Lancs.
Berry, Miss D., Lea Croft, Hope, via Sheffield.
Watson, W. H., Glenholme, Hutton Cranswick, E. Yorks.
Price, A. F., The Cottage, Littleport, Cambs.
Bown, E., Sweet Home, Ringwood Road, Parkstone, Dorset.
Bennett, J. T., 7, Appleton Village, Widnes, Lancs.
Edmonds, J., Fairview Orchard, Bere Regis, Wareham, Dorset.
McClure, J., Gortgarn, Randalstown, Co. Antrim.
Barsby, Mrs. Wm., Brothertoft, near Boston, Lincs.
Byatt, W. E., Shawe Cottage, Kindsley, Stoke-on-Trent.
Allen, R., Layer-de-la-Haye, Colchester, Essex.
Boyce, Mrs. E. F. Leighton-, 30, Lansdowne Hill, West Norwood, S.E.27.
Farley, J., Little Corners, Barkham, Wokingham, Berks.
Stanhope, A., Moor House, Birdsall, Malton, Yorks.
Roberts, Miss M. J. Gallaway, Rowan-Garth, Highcliffe-on-Sea, Hants.
Shotton, G., 77, North Seaton Road, Newbiggin-by-Sea, Northumberland.
Pullen, H. H., 49, Girton Road, Sydenham, S.E.26.
Bell, Lanchlan, Prospect Place, Clydesdale Street, New Stevenston, Holytown, Lanarkshire.
Joy, H. W., "Perwick," Lostock Hill Road, Poynton, Cheshire.
Cooper, H. B., Winklebury, near Basingstoke, Hants.
Cracroft, J. H., c/o Mrs. Rooke, Holding 3c, Uckfield Road, Ringmer, Sussex.
Holford, Mrs. Gwynne, Hartpury House, Maisemore S.O., Gloucester.
Stewart, R. Broom, Downview, Downview Road, West Barnham, near Bognor, Sussex.
Nelson, J. S., Derryboy, Crossgar, Co. Down.

FOOD PURCHASE SCHEME.

Referring to the odd cwts. which are now to be supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown. This is to cover the extra expenses and handling, which the one cwt. business involves.

PRICES OF MASHES, ETC.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

Fish Meal (Pure White) ... 18/3 F.O.R. LONDON.
" " " ... 18/3 F.O.R. BRISTOL.
" " " ... 17/9 F.O.R. SWANSEA.
" " " ... 17/9 F.O.R. TYNEMOUTH
" " " ... 17/9 F.O.R. GRIMSBY.
" " " ... 18/3 F.O.R. BRADFORD.

PRICES OF MASHES, PER CWT.

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	10/9	10/9	11/0	11/6
F.O.R. LIVERPOOL	11/9	12/0	13/3	13/3
F.O.R. LONDON	11/6	11/6	12/6	12/9
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN ...	11/0	11/0	11/9	12/3
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/0	11/0	11/9	12/6
F.O.R. SOUTHAMPTON .	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH ...	12/0	14/0	12/6	14/3
F.O.R. ABERDEEN	12/9	11/9	13/9	13/9
F.O.R. HARROGATE ...	12/9	12/6	13/6	13/6
F.O.R. GLASGOW	12/0	12/0	12/0	13/0
F.O.R. STAFFS	11/0	11/0	12/6	12/3
F.O.R. SUSSEX (East) ...	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/3	10/9	11/6	11/3
F.O.R. SUSSEX	11/6	11/6	12/6	12/6
F.O.R. BRADFORD	12/6	12/3	13/3	13/3
F.O.R. BIRMINGHAM ...	11/6	11/6	12/3	12/6
F.O.R. GREENOCK	11/6	12/0	12/9	13/3
F.O.R. TEWKESBURY ...	11/9	11/9	13/0	13/3
F.O.R. BOLTON	12/0	12/0	13/0	13/0
F.O.R. MIDDLESBROUGH	11/0	10/9	11/0	12/0

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	16/9	14/9
F.O.R. LIVERPOOL	18/3	14/9
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEICESTER	16/9	14/9
F.O.R. KING'S LYNN	17/0	15/0
F.O.R. BELFAST	18/0	16/9
F.O.R. BRISTOL	17/3	14/9
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	14/9	13/9
F.O.R. HARROGATE	17/9	—
F.O.R. GLASGOW	17/0	15/0
F.O.R. STAFFS	17/0	14/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	17/0	14/9
F.O.R. SUSSEX	18/0	14/9
F.O.R. BRADFORD	17/6	15/9
F.O.R. BIRMINGHAM	18/0	16/0
F.O.R. GREENOCK	18/3	16/0
F.O.R. TEWKESBURY	18/3	16/3
F.O.R. BOLTON	17/0	15/3
F.O.R. MIDDLESBROUGH	17/3	16/0

		Per Cwt.
MAIZE GRITS	F.O.R. LONDON ...	10/0
MAIZE GRITS	F.O.R. IPSWICH ...	10/0
S. G. OATS	F.O.R. LONDON ...	13/0
S. G. OATS	F.O.R. SUSSEX	12/6
S. G. OATS	F.O.R. BRISTOL	12/9
MEAT AND BONE MEAL ...	F.O.R. LONDON	13/9
MEAT MEAL	F.O.R. LONDON	14/3
MAIZE GERM MEAL	F.O.R. LONDON	8/3
MAIZE GERM MEAL	F.O.R. IPSWICH	8/3
MEAT AND BONE MEAL...	Carriage Paid	15/3
MEAT MEAL	Carriage Paid	15/9
ALFALFA	F.O.R. LONDON	11/9
„	F.O.R. BRISTOL	11/9

We have now been able to procure a consignment of English Alfalfa Meal, and can offer this at 11/6 per cwt., F.O.R., from a town in the Midlands.

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

SPECIAL.

We are able to offer this week a special sample of Fish Meal, with the following analysis:—

OIL	4.5 per cent.
ALBUMINOIDS	58.60 „
PHOSPHATES	16.18 „

At following prices, F.O.R., London. Under 5cwts. orders 18/9 per cwt.; 5cwts. and upwards, 18/3 per cwt.

Liability of Poultry-farmer to Income-Tax.

HIGH COURT OF JUSTICE.

KING'S BENCH DIVISION.

T. JONES (H.M. INSPECTOR OF TAXES) v. W. NUTTALL.

(Before Mr. JUSTICE ROWLATT.)

This was a case stated by the General Commissioners for the Amounderness Division of Lancashire, and raised the question whether profits arising from the breeding and sale of poultry and the sale of eggs by a poultry farmer were assessable to Income-Tax as the profits of a trade under Schedule D of the Income-Tax Acts. The respondent, Mr. William Nuttall, appealed to the Commissioners against the estimated assessment of £200 under Case I of Schedule D of the Income-Tax Acts in respect of profits from the business of a poultry farmer.

The following facts were proved or admitted:—The respondent was the occupier of three acres of land at Longridge, Lancashire, for which he paid a rental of £10 per annum. He did not till any part of the land, which was all under grass. In houses and pens erected on the land he kept about 350 head of poultry. His chief and practically sole business consisted in the production and sale of eggs, of which he sold approximately 50,000 per annum. The birds were raised from his own sittings of eggs, and the surplus cockerels weeded out and sold each year. Hens past laying also were sold. The respondent kept no birds for show or especially for breeding purposes. All the food for the poultry was bought by the respondent. Upon the part of the land unoccupied by the poultry houses two cows grazed during the summer and four sheep during the winter.

On behalf of the respondent it was contended that he was a poultry farmer pure and simple, and was therefore entitled to be assessed under Schedule B; and that poultry farming pure and simple was husbandry in the truest sense of the word.

On behalf of the Crown it was contended that poultry farming was not husbandry within the meaning of Schedule B of the Income-Tax Acts; that the profits derived by the respondent from the breeding and sale of poultry and from the production and sale of eggs did not arise from the occupation of land so as to fall within Schedule B; and that the operations carried on by the respondent were in the nature of trade within the meaning of Case I of Schedule D of the Income-Tax Acts.

The Commissioners held that poultry farming, as long as it was poultry farming pure and simple, was husbandry, and found in favour of the respondent.

(Continued at Foot of Previous Column).

The Crown now appealed.

The Attorney-General (Sir Douglas Hogg, K.C.) and Mr. R. P. Hills appeared for the Crown; and Mr. A. M. Latter, K.C., and Mr. P. B. Morle for the respondent.

JUDGMENT.

Mr. Justice Rowlatt, in giving judgment, said that he was of the opinion that he ought to follow the decision of the Scottish Court in Lean v. Ball (1925) Scots L.T., 617, which appeared to him to be full of sound law and good sense. A distinction was there drawn between the case where land was used merely as so much space on which poultry and such creatures could exist, and the case where the stock on the land lived to a material extent upon the fruits of the soil—vegetable, insect, and mineral. In this case the substantial object was the sale of eggs, and it was within the competence of the Commissioners to find that the respondent was using the land for his poultry. Poultry lived to some extent on herbage and the insect produce of the soil, and the respondent was working his land so as to make it yield more than it otherwise would, but he was not exercising a trade upon it. In his (his Lordship's) view, Commissioners in future would be well advised to follow the line of distinction land down in the above Scottish case. Here the Commissioners had come to a right decision, and the appeal must be dismissed.

Solicitors.—The Solicitor of Inland Revenue; Messrs. A. E. Hamlin and Co.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 12th MARCH, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is in fair supply, and, with a dull demand, prices have again declined, the average quotation being 11s. 5d. per cwt. as compared with 11s. 8d. last week. Imported also meets a slow trade at easier rates, reductions ranging from 4d. to 9d. per cwt. being recorded. Home-grown feeding barley is in large supply and cheaper at London and Bristol; foreign also sells at lower figures. English oats are generally in little request, but black varieties are unchanged in value, while white are slightly easier at some centres. Imported oats attract little attention, and prices at Bristol and London have declined on the week. Maize is freely offered, and, with a limited demand, is again cheaper, Argentine averaging 6s. 11d. per cwt. as against 7s. 3d. a week ago.

Bran and coarse middlings mostly sell at recent prices. Maize products are inactive and again cheaper, maize meal averaging about £8 10s. per ton, as compared with £8 17s. in the previous week. Oil cakes generally meet a dull inquiry, and values have declined at several markets, especially at Hull, where reductions ranging from 5s. to 10s. per ton have been made.

MILLERS' OFFALS.—Bran (British): Bristol, £6 15s; Hull, £5 17s; Liverpool, £7; London, £5 17s. Broad Bran: Hull, £8 7s; London, £7 15s. Middlings—Fine (Imported): London, £7 12s; Coarse (British): Bristol, £7 5s; Hull, £7; Liverpool, £7; London, £5 2s. Pollards (Imported): Bristol, £5 15s; Hull, £5 5s; Liverpool £5 10s; London, £5 10s. Rice Bran: Bristol, £6 17s; Liverpool, £6 10s; London, £6 2s. MEAL.—Barley Meal: Bristol, £8 12s; Hull, £9 7s; London, £9 5s. Maize Meal: Bristol, £9; Hull, £7 17s; Liverpool, £8 10s; London, £8 15s. Maize Meal (S. African): Bristol, £8; Hull, £7 5s; Liverpool, £7 7s; London, £7. Maize Germ Meal: Hull, £8; London, £7 5s. Maize Gluten Feed: Bristol, £10 5s; London, £9 10s. Locust Bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9 12s. Bean Meal: Bristol, £13; Hull, £11 12s; London, £12 5s. Fish Meal: Bristol, £21; Hull, £20; Liverpool, £18 10s; London, £18.

EGGS AND DEAD POULTRY.

Eggs mark a further decline at Bristol and Liverpool, but prices are steadier at London. In the dead poultry section, ducks and best quality fowls are somewhat short and make firmer prices, but otherwise little change is reported.

Week-end Prices—Eggs (per 120): British, 14s 3d, 13s 0d; Irish, 14s 3d, 13s 6d; Danish (18 lb.), 16s; Danish (15½ lb.), 14s; Dutch (brown), 15s 0d, 14s 6d; Dutch (mixed), 14s 0d, 13s 6d; French (Brittany), 12s 0d, 11s 6d; French (Normandy, brown), 14s 0d; French (Normandy, mixed), 13s 6d, 12s 9d; Belgian, 13s 3d, 12s 9d; Italian, 13s 0d, 12s 0d; Argentine, 12s 0d, 10s 0d; Polish, 11s 6d, 11s 0d; American, 12s 3d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 11d, 1s 7d; Irish, 1s 4d, 1s 2d; Others, 1s 7d, 1s 2d. Ducks, 1s 10d, 1s 7d. Geese, 1s 3d, 1s 1d. Turkeys, 1s 7d, 1s 4d.

EGGS.

Per Doz.—Ashford: First, 1s 3½d; Second, 1s 2d. Birmingham: First, 1s 3½d; Second, 1s 3d. Bridgwater: First, 1s 4d; Second, 1s 2½d. Chelmsford: First, 1s 4¼d; Second, 1s 2½d. Colchester: First, 1s 4¼d; Second, 1s 2½d. Doncaster: First, 1s 10d; Second, 1s 8d. Dorchester: First, 1s 2½d; Second, 1s 2d. Exeter: First, 1s 2d. Hereford: First, 1s 2d. King's Lynn: First, 1s 3d; Second, 1s 1d. Llandilo: First, 1s 2d; Second, 1s 1d. Mold: First, 1s 2d; Second, 1s 0d. Montgomery: First, 1s 3d. Newport (Mon.): First, 1s 5d; Second, 1s 4d. Norwich: First, 1s 4d; Second, 1s 2d. Oswestry: First, 1s 0d. Penzance: First, 1s 0d; Second, 11d. Saffron Walden: First, 1s 4¼d; Second, 1s 2½d. St. Ives (Hunts): First, 1s 4½d; Second, 1s 3½d. Salisbury: First, 1s 1½d; Second, 1s 1d Skipton: First, 1s 9d. Swindon: First, 1s 2d; Second, 1s 1d. Truro: First, 11d. Welshpool: First, 1s 6d; Second, 1s 2d. *Carlisle: First, 1s 4d; Second, 1s 2d. *Derby: First, 1s 6d. *Ipswich: First, 1s 6d; Second, 1s 3d. *Lincoln: First, 1s 9d. *Shrewsbury: First, 1s 3d; Second, 1s 2d. *York: First, 1s 9d, Second, 1s 8d.

FOWLS.

Per lb.—Birmingham: First, 1s 5d; Second, 10d. Doncaster: First, †6s 0d; Second, †5s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 6d. Llandilo: First, 1s 7d; Second, 1s 4d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First, 1s 5d. *Derby: First, †6s 0d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d. *York: First, †6s 0d; Second, †5s 6d.

DUCKS.

Per lb.—Exeter: First, 1s 4d; Second, 1s 2d. Llandilo: First, 1s 7d; Second, 1s 4d. *Ipswich: First, 1s 4d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, March 17th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

ANSWERS TO QUERIES—Continued.

G. C. M. (Worcester) wishes to know the best method of shortening a cock's spurs. The potato has been tried, but without success. Why "G. C. M." failed with the potato I cannot understand, but possibly it was not hot enough, or the application was not long enough. However, the following method could be employed perfectly successfully, and I may say here, to prevent protest from some of my readers, on the score of cruelty, that this is not a cruel operation, provided ordinary care is used. Simply use a red-hot poker and burn the spur down. Care must be taken not to go too far; all that is necessary is to shorten the spur, and not burn it to the quick. There is no feeling in the horny matter.

POST-MORTEMS.

C. E. W. The post-mortem examination of the pullet showed that the cause was internal haemorrhage. The ovary was in an extremely active condition, and apoplexy of several ova had occurred, the blood vessels in one of them having given way under the stress of the greatly increased blood pressure.

LANCASHIRE FEDERATION OF UTILITY POULTRY SOCIETIES.

A Quarterly Meeting will be held in the Master Builders' Rooms, Mount Street, Preston, on Saturday, March 20th, 1926. Chair to be taken at 3 p.m.

AGENDA:—(1) Minutes of last meeting. (2) Correspondence. (3) National Poultry Council: Delegates' Report. (4) Marketing Conference. (5) Standards' Committee Meetings. (6) Sub-Committee's Reports: (a) Educational. (b) Finance. (c) Laying Test. (d) Show. (7) Any other business.

E. COLLIER, Secretary.

The following Sub-Committees are requested to attend a meeting at the same place at 2 p.m.:—

Educational.—Messrs. T. Edmondson, S. Porter, Rev. A. J. King, D. Braithwaite, C. Longbottom, W. R. Hall, and W. Martindale.

Finance.—Messrs. J. P Willacy, F. Thompson, J. Hall, W. Kay, A. Grime, and D. Potts.

Laying Test.—Messrs. W. Hammett, H. Hayes. G. E. Leigh, G. B. Tootall, J. Whalley, H. Winstanley, T. Sutton, and G. Woodward.

Show.—Date of Federation Show, November 28th, 1926, at Bury. Special prizes from societies, and advertisements for schedule and catalogue should be sent to the Show Secretary, Mr. H. Hayes, Great Fold Poultry Farm, Tottington, Bury.

P.S.—Secretaries please note affiliation fees for 1926 are now due.

EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH).

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Edited by TOM NEWMAN.
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(COPY). JAMES C PRICE, M.S.P.B.A., and N.U.P.S., Hill Place, Blackboys, Sussex.
January 7th, 1926

"Dear Mr. COLT,—Yours of 4th inst. to hand with details of new LX model and estimate for 60 feet houses.

"I have now given your brooders and laying houses a thorough test so that this testimonial is not just the cock-crowing of an amateur pleased with a new toy, but it is based on a study of results, both as regards rearing and egg production, for the last three years.

The design of all your houses is just about perfect, and one can expect to rear, barring accidents, every healthy chick put in your brooders. As to your laying houses, a flock of 200 1925 White Wyandotte pullets in one of your houses have been laying well over 50 per cent. all winter in spite of the fact that owing to deep mud they have had to be kept indoors.

"I put this down to the construction of your houses, which allow full light and ventilation.

"For the last three years practically all my birds have been brooded, reared and trapped in your All-Purpose Houses, and the results have proved all you claim for them.

"**Two of my birds picked from a flock of pullets** reared in your brooder houses have done well at the NATIONAL LAYING TEST:—

No. 1298, 'Slothful Sam," laid 203 eggs in 48 weeks (196 Grade I.).
No. 1307, "Mercenary Mary," laid 220 eggs in 48 weeks (215 Grade I.).

"Your latest model LX appears to be even better—if that be possible—so I shall look forward to a 75 per cent. egg yield next winter."

Yours truly, JAMES C. PRICE.

ALL-PURPOSE MODELS are made in various depths. State your requirements, and we shall be glad to quote. All-Purpose Models (Patd. and Regd.) will henceforth be made up in 1in. T. and G. board throughout as a standard; ¾in. T. and G. to order only. All-Purpose Models ensure maintenance of suitable brooder temperature under hovers and in brooder compartment, for reasons which we shall be glad to explain to applicants.

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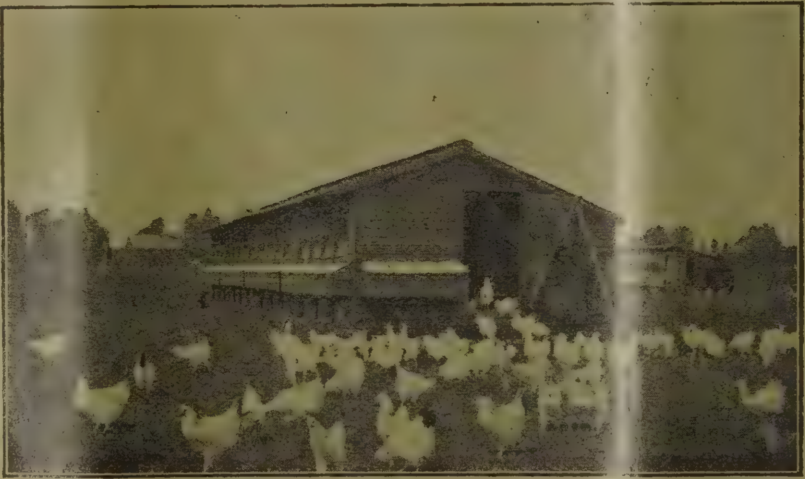
The 'Eclipse' Poultry Houses



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THE VERY BEST DESIGN.

Sound Materials.

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No better value can be obtained.

This is the testimony of all who inspect them.

Mr. Newman writes on the 13th of last month when ordering three more 40 ft. houses:—"The weather has been exceptional; up here we have been quite in the clouds at times and could hardly see. However, the birds have done remarkably well, and we have been getting 70—80 per cent."

This season's orders have for January and February already exceeded nearly three times that for the corresponding period of 1925. This is very largely due to repeat orders and recommendations, proving beyond all doubt the superiority of the "ECLIPSE" Houses over all other types, and the satisfaction they give to our customers.

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EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, MARCH 24th, 1926.

Editorial.

THE LITTLE THINGS THAT MATTER.

(Continued from Page 174.)

The following is part of a paper read before the Tewkesbury Branch of the S.P.B.A., which is reproduced here by request.—Editor.)

I have had several complaints as to the flavour f the eggs, and not long ago one of the distriutors wrote to me and asked if I could use any nfluence to discourage the use of fish meal, as it ndoubtedly had a bad effect on the flavour of the ggs. I am certainly not going to discourage the se of fish meal on this account, but I think it wise o mention that many of the inferior brands are only t for manurial purposes; that they not only imart a fishy flavour to the egg, but in very many ases their use has resulted in a big slump in the gg yield, owing to their making the mash so unalatable that the birds will not eat a sufficient uantity.

INCUBATORS AND BREEDERS.

I have examined this season many hundreds of nhatched eggs which have been sent me, and ave been again compelled to come to the conlusion that in at least 70 per cent. of these eggs he failure is with the stock birds and not with he incubator. I may mention immaturity as one f the probable causes. In fact, in many cases e have been able to trace it directly to this, but ne hears so much of production being a cause of oor hatchability that it is worth considering here. What is actually meant by over-production? I resume the number of eggs laid which may be t the expense of bodily health and vigour, but an we lay down an arbitrary law as to what contitutes over-production? Most certainly we canot, although there are some people who will tell ou that anything about 290 is fatal.

We cannot measure production on these lines, owever. One pullet may lay 200 eggs and her ealth and vigour be affected thereby, so that her ggs may hatch badly, or produce weakly chicks. nother may lay six dozen more and possess bounding vitality. Why the difference? I think ou will find the answer is that it depends on the ate of maturity—that is, the date of laying the rst egg. It is the precocious pullet which prouces her first egg at five months old, and is unable to consume sufficient food for both bodily development and production, which, in the main, has led to the troubles of the breeder of bred-to-lay stock. Her body is never fully developed, neither are her reproductive organs. She lacks bone, and is really an exhausted bird. I think our judges at utility shows should look for a better balanced bird, should not press unduly such points as fine flat bone and pelvic bones like tissue paper.

I had a letter from a Scottish member a week or two ago. The male in his breeding pen had "lifted" 40 First Prizes in Utility Shows last year, and was Third at the Crystal Palace, but in the breeding pen he was an absolute failure. Many of the pullets he bred did not turn the scale at 3 lbs., and the eggs were so small as to be almost unsaleable. He may, of course, not have been judiciously mated; probably this was the case, but there is no doubt that this craze for fine bone is a very serious mistake. Extremes never pay, and one would like to see our utility stock judged rather as potential breeders than as likely producers. You will find that the craze for fine bone encourages the breeding from these precocious pullets which are lacking in bone; it causes a fairly high percentage of dead-in-shell, a ricketty condition in the chicks, the increasing complaint of crooked breast bones, and the decreasing size of British eggs, as mentioned at the recent Marketing Conference.

It is certainly wrong to talk of over-production because a bird lays 280 eggs or more, and regard as safe one which lays 200. You must always take the individual into account.

THE WINTER EGG.

Now shall we talk about the Winter Egg and why so many people **do not** get it. We need not go back to the breeding stock. You all know if your breeding stock is not carefully selected you will breed poor producers. We will first consider the date of hatching, for I find so many people who do not get the winter egg hatch too late. My own view is that the latest profitable date for hatching heavy breeds is April 7th, and light breeds May 7th. You may get pullets from some early maturing strains which may give you the winter egg when hatched later than this, but you will find two things occur. One is that they will take longer to develop than their own sisters earlier hatched; they will not attain the size or vigour, and they will lay smaller eggs. I know on many of our commercial egg farms it is common to hatch at the end of May or even in June. I wonder whether they have compared the number of eggs produced and their value with that of the earlier birds? I think they would find it difficult not to show a loss on these late-hatched pullets. I find, however, that the main cause of the complaint of the lack of the winter egg is the failure to realise how necessary it is to keep the chick growing during the growing period. It is so difficult to make people understand the effect of bad rearing and underfeeding, overcrowding, stale ground and bad housing. Now overcrowding, stale ground and bad housing cause under-nutrition as much as will underfeeding. In general, underfeeding takes place between the third and fifth month, when it may be said that the growing chick requires all the food it will consume. Not only will you find that pullets which have been badly reared, and, as a consequence undernourished, will be later in coming into production, but they will lay less eggs and smaller eggs. If you want the winter egg you must keep the chick growing from the time it is hatched, and the pullet must go into its winter quarters in a condition to lay. Another point in connection with the winter egg is the temperature of the house. Now I am not going to advocate hot-water bottles or even hot-water pipes, but when I hear poultry farmers boasting of their open-fronted houses, and talking of hardening their birds, I sometimes wonder if they have realised what they are doing, for, after all, you know it is perfectly possible to have a well-ventilated house without its being open-fronted or cold.

To my mind much mischief was done by the advocacy of the open-fronted house as a preventive of roup, for I have found that so far from preventing roup, they have done much to cause it. When you get a cold spell you invariably get a drop in egg production; that is because there is too great an expenditure of bodily heat. You will get this even with birds kept intensively. Now the loss of bodily heat is not appreciable during the day when the birds are active. It occurs when they are on the perch, and the temperature of a house is often below freezing point.

Just imagine an open-fronted house in such weather as we experienced in December, when 21 degrees of frost were recorded in Sussex. I find in so many of these houses the birds are wholly unprotected from a cold wind when on the perch, and this means a very substantial loss in eggs. In one case we tested this; the netting above the glass was covered with hessian, and there was soon an appreciable improvement in production. We are going to study this question of temperature and egg production on our experimental farm next winter, and I am convinced we shall find that the birds which are kept fairly warm will win. I am perfectly in agreement with those who say you should not coddle your birds, but it is quite unnecessary to go to the extreme. The cost of making a house warmer should not be excessive.

Duck Ailments.

By BERNARD REDDAWAY.

Continued from page 184.

A slight watering of the eyes is the first sign of a cold in ducklings, and if they are treated directly this appears it is not at all difficult to cure them, but if treatment is deferred until further symptoms appear it is usually hopeless to succeed in curing them. I have tried many different medicines, but I think that for treatment in the early stages of a cold there is nothing to equal permanganate of potash. I make a strong solution of this, and dip the whole of the duckling's head in it three times a day. The head should be kept immersed for about thirty seconds at a time. The duckling is usually quite cured after about two days of treatment. Colds are highly infectious.

Pneumonia in ducklings cannot be cured. Treatment is useless, and it is advisable to kill off the infected birds. The course of this illness is very rapid, the ducklings will very often appear quite well at seven in the morning, but will be found dead by ten o'clock. Fortunately pneumonia is not infectious. It is well to remember that a duckling is immune from pneumonia unless its vitality is lowered by bad feeding or a cold. There is no need for either of these two illnesses to appear so long as care is taken in the treatment of the young ducklings for the first two or three weeks of their lives.

Now we come to ovarian trouble. This ailment, it can scarcely be called a disease, is caused by very heavy laying. It is not very easy to avoid, but I am of the opinion that it is closely connected with too early laying. Whether this is because the best layers start first, and are therefore more likely to get an over-developed ovary, or whether it is because they lay before they are properly developed, it is hard to say. Most probably it is "six of one, and half a dozen of the other." If ducklings were hatched slightly earlier it is quite likely that this complaint could be avoided. The May-hatched bird has to be given a very large amount of fish or meat meal to bring it into lay during October and November, and this forcing most probably weakens the ovary. If the ducks are fed for frame for the first four months of their lives, and are not brought into lay until they are about six months of age, it is not likely that many cases of ovarian trouble would appear. When the ducks are in lay it is most important not to give an unduly large amount of fish and meat meal. It is only natural that if the bird, which is laying hard, is given more fish meal than she can reasonably be expected to turn into eggs, she will either go off her food or, if she eats it, have a breakdown from having her egg organs forced. It is quite likely that the tendency to have ovarian trouble is hereditary. That being the case, we should pay nore attention to the building up of strong egg organs in our laying ducks. Ovarian disorders are the only troubles which are likely to prevent the duck from remaining the greatest egg producer that we have in the world. On no account must a duck, even though she lay over three hundred eggs in one year, be used as a breeder if she has ever suffered from ovarian trouble.

Another trouble which is prevalent among ducklings is sunstroke. Of course, the great thing is to prevent it by giving them plenty of shade during May and June, but should they get into the sun it is in some cases possible to cure the sunstroke which follows. Some ducklings will never get sunstroke, while others will get it in quite a cool sun. Quite likely it would be possible to breed the susceptibility to sunstroke out of a strain. If the ducklings become struck with the sun it is sometimes possible to cure them by holding their skulls under cold running water for two or three minutes, and then placing them in the cool under a flower plot an hour or two. When they are taken out from under the flower pot they will be found cured or dead. If they are cured they must on no account be allowed in the sun for some days, as they are almost sure to become ill again directly they go into the sunshine. On no account must such birds be used for breeding, no matter how good they are in other respects.

Grit and green food are the two things which will keep ducklings free from all stomach troubles, and there is no need to worry if these two things are always before them.

We are informed that the laying breeds of ducks are land ducks. While not wishing to throw doubt upon this statement, we must admit that the duck, whether Runner or Orpington, has feet which were most certainly not made to walk upon dry land all their lives. The feet of ducks are their weakest points.

It is certain that thousands of eggs are lost yearly owing to laying ducks going lame and then ceasing to lay. There are many reasons for this ameness ; cuts, thorns, warts and swellings all play their part in laming the duck.

It is not very easy to prevent ducks from going ame, so that, unlike most ailments, we have to ely upon rapid cures rather than upon prevention.

Septic feet are one of the worst foot complaints hat a duck can get. This state is very often brought about by letting ducks sleep upon unittered wood floors, or upon very damp foul straw. f care is taken of the birds, and they are not nade to sleep and walk upon unsuitable floors, it will be found that septic feet will be very rare. The chief symptom is that the foot becomes very wollen, and turns blue. This type of foot is very painful for the duck, and if it is not treated lirectly it is observed it will spread right up the eg. The treatment is as follows :—The duck or luckling must be moved on to clean grass, or soft at chaff. The foot must be well washed in a veak carbolic solution, and then it should be painted with strong iodine. This should be done once every day. If there is much discharge in the leg it should be let out, the hole being made on the top of the foot. A needle can be used to do this with, but it should be heated over a gas burner to kill the germs before use. It must not be used until it is quite cold. If this treatment is followed the foot should very soon get well.

Now we come to warts; these are caused by walking upon hard ground. They become especially painful during spells of frost or hot dry weather. These must on no account be cut, as they are very likely to become septic if this is done. They should be treated with the same things that we treat warts in human beings—nitrate of silver.

Another type of foot which is quite common is a kind of bumble-foot. This is caused by a thorn prick, or small cut. The foot swells very much, but it remains red in colour. Unless the right treatment is adopted, this type of foot will remain bad for weeks at a time. As a rule it looks as if it is full of discharge, but it is very rarely possible to get anything from it. The foot must be well washed, and then Iodex should be rubbed well into it. This must be done twice or three times every day. After about a week of treatment the foot will be quite cured. I do not advise the use of poultices, as the outside skin of a duck's foot is so thick that a poultice has very little effect. Also the duck hates having her foot bound up, and usually manages to tear the bandage off directly she has a chance.

If the duck's blood is kept in good condition by the use of greenstuff in the food, these nasty foot troubles can be very largely reduced.

There is one thing to remember in connection with all diseases, prevention is better than cure, and the duck need never get really ill if every care is taken to prevent illness.

WYE COLLEGE DUCK LAYING TRIALS, 1925-26.

Report for Fourth Period—January 34th—February 20th, 1926).

During the month weather conditions have been much more favourable for egg production, and consequently a much higher egg yield has been obtained. The average number of eggs laid per bird during the month has been 12.54, as compared with 6.02 last month This brings the average to date to 31.29 eggs per bird.

The leading pens in the breed sections are:—

Khaki-Campbells.—1st, Mr. G. H. H. Simmon's Pen No. 6, 283 pts.; 2nd, Mr. A N Dickson's Pen No. 17, 262; 3rd, Capt. B. A. Long's Pen No. 2, 221

Indian Runners.—1st, Miss Harrison Bell's Pen No. 26 (W.), 273; 2nd, Messrs. R. A and A. M. Johnson's Pen No. 28 (W.), 214; 3rd, Miss Davidson and Miss Chisholm's Pen No. 20 (F.), 182.

PRESTON AND DISTRICT U.P.S. TEST.

Held at Hutton, Lancs. C.C. Farm.

Fourth Month.

Figures are Eggs and Points respectively.

Section 1. White Leghorns.—P. Williamson, 196, 1393; R. Beesley, 154, 1268; C Morey, 173, 1097; G. H. L. Armstrong, 137, 1013.

Section 2. W. Wyandottes.—H. Sutton and Sons, 224, 1641; G. H. L. Armstrong, 180, 1393; J. Rainford, 179, 1344; J. T. Finn, 174, 1253.

Section 3. R.I.R.—R. Moon and Son, 208, 1660; J. Cobham, 201, 1546; J. Basnett, 212, 1500; H. Booth, 173, 1363.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"**BODIES**" for post-mortem examination should be sent to **Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing**

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (**NOT from Major Saunders**).

All questions should be addressed to the Editor. **Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.**

A. V. D. (Carlisle). Your treatment of the pullet with prolapsus was correct, but the fact that you are getting thin-shelled and shell-less eggs is a sure indication that your feeding is too stimulating, and if you do not stop the use of spice, there are almost certain to be more cases. Spices at any time are but irritants, and to use them at this season of the year, when even a dud pullet wants no stimulating to make her lay, is foolish in the extreme, and is courting disaster. (2) The chick which you describe as being blown up like a balloon was suffering from emphysema. It is usually due to lung trouble, and air diffused in the cellular tissue, pricking the skin, results in temporary relief, as it permits the escape of air, but I have never known a chick which has been treated to reach healthy maturity. It is better to kill them. (3) The sample of chick feed at 22s. per cwt. is very dear; the percentage of millet, a seed most difficult to digest, is very high. It is an inferior sample, and not worth more than 15s. per cwt.

Troubled (Perth). It would have been much wiser to have sent chicks to Major Saunders a fortnight ago for post-mortem examination, and not waited until the losses became so serious. Although I cannot say definitely that there is no contagious or infectious disease, there is every reason to believe that the source of the trouble is the mash you are using, for this has a distinctly musty smell, and I should imagine had been in stock some time. You must discontinue it at once, and give the chicks a mild dose of Epsom salts; but I am afraid they will be but a poor lot. If you had sent me an address I would have replied by post, but as you did not do so, further delay is involved. (2) In respect to the sample sent. If you use two per cent. of this in the mash, and it consists of ground cereals with some cod liver oil and malt, I can't see that much good is going to be done; the percentage of cod liver oil is too small to be effective, and admitting malt is a digestive, do you think that such an infinitesimal quantity is likely to have any effect? We must use a little common sense in the matter, you know, before we hand over our hard-earned money. (3) Why, you have no reason to be discouraged because you have lost a few chicks. All beginners make these mistakes. You will learn by them, and that is what most of us have had to do, that cod liver oil condiment would not have saved your chicks from dying from eating musty food, and it is far wiser to use good sound food and see that you get it, than to waste money on these things. Build up your stock by sound methods of housing and feeding and careful selection; it will pay far better in the long run than by buying all the quack remedies advertised.

Puzzled (Worcester). I have examined the eggs sent, and all but two appear to have died about the tenth day. The only suggestion that I can make is that the cause is escape of gas fumes into the incubator. There seems no other possible explanation. The temperature was correct, you say, and the thermometer had been tested; the question of moisture would not arise at this stage. If the stock birds had been at fault, we should have found a fairly high percentage of clear eggs and dead germs. (2) I do not like the idea of your keeping this cockerel next year, and mating him to his pullets; such a mating is only desirable under exceptional circumstances and with exceptional birds. You are quite mistaken in believing that it would lead to improvement—it is one form of in-breeding. (3) With regard to the early-hatched Leghorns. These will probably start laying at the end of June. You could trap them for six weeks, say, and mark those for breeders which lay 22 or more eggs during that period. Of course, you will understand that there must be selection apart from the actual record. Thanks for all the nice things you say of "Eggs."

F. R. D. (Wolverhampton). Surely you must have misunderstood the expert. Boiled rice three times a day, dried off in turn with middlings, ground oats, and barley meal to give variety! No wonder the chicks went off their legs and had diarrhoea. Now as to the feeding of this next 100 you are getting, try the following:—For the first forty-eight hours they will not require any food, then give them a good dry chick feed; avoid those containing millet, green pea, lentil, and dari. About two tablespoonfuls four times daily will be sufficient, with as much as they will eat as the last feed; after the fourth day give this in the litter, so that they will get scratching exercise. In addition have a hopper of dry bran and Quaker Oats or Provost Oats always before them, and give them skim milk to drink. After the sixth day put them on to the following mash, which you can give dry or in a crumbly moist condition; if dry, it should be always before them (the bran and Quaker Oats will, of course, be discontinued at this stage). The mash is:—21lbs. bran, 10lbs. Alfalfa meal, 35lbs. middlings, 21lbs. Sussex ground oats, 14lb. maize meal, and 8lbs. fish meal. Give a little of the chick feed to promote scratching exercise during the day, and a full feed last thing at night. No, do not feed them by lamplight.

Small Egg (Carnarvon). This small yolkless egg occurs occasionally when a pullet has ceased laying a clutch of eggs, and the ovary is inactive; the shell is usually thicker, and of closer texture than an ordinary egg. The production of these eggs is caused by irritation of the central portion of the oviduct, albumen is secreted which, passing down the tube to the uterus, is there covered with shell. From what I can gather, the losses from pneumonia occurred from exposure to cold winds. The losses every year from this cause are very large, and to a great extent are preventable. Surely you will see the necessity of sheltering the chicks, and it should not be difficult to shelter them from the wind, so that they may get all the value of what sun is available. You would no doubt have saved some of them had you given 40 grains of citrate of iron and quinine to the gallon of drinking water. If you would but realise that five minutes' exposure to a biting wind will kill any young chick, I think you would provide the necessary shelter.

B. W. D. (Lincoln). I cannot speak authoritatively on this point, but there does not appear to be any reliable evidence that B.W.D. has been introduced through the male bird, and I should think it extremely doubtful. If the breeders' stock was tested last September, that would be no guarantee that he had no "carriers" in his flock now, and it is quite possible that he would be sending out eggs which are infected. Of course, there would be less chance of their being carriers on a farm where the birds had been blood-tested than on one where they had not been tested; but you must not look upon the test as a guarantee of total immunity, and if the test had been made any considerable time, no great reliance can be placed in it. (2) The breeder has acted very fairly in writing to tell you he has B.W.D. on his farm. It would not be advisable to take any more eggs or chicks from him this season, but it does not necessarily follow that you will have an outbreak from those you have incubating, but you must take every precaution. The incubator should be fumigated, and it would be better to get new felts. You must keep them to one brooder, and some distance from other chicks. Of course, you will thoroughly disinfect the brooder; if an outbreak does occur, kill and burn the lot—trying to save a few is not worth the risk.

New Reader (Wilmslow). I have examined the sample of mash sent, and judge the fish meal you are using to be the cause of the trouble. It would have been better had you sent me a sample, but the mash smells so strongly that I am confident it is not one which should be used for feeding poultry; the eggs would be tainted, and it would explain the dark-tipped combs. You must stop it, and give the pullets a mild dose of Epsom salts. Sorry I can't tell you how to use it except for manurial purposes. (2) You should have given the Barnevelder eggs a little longer in the incubator. So many that are sent me would have hatched had they been given time. Eggs with shell as thick as these require more time than, say, Leghorns. Don't you think you would be wiser to confine yourself to two breeds until you have had a little more experience, when you have you will probably not want more than two?

Fleet (Farncombe). Sorry I cannot argue the point. If your friend persists that the progeny of the Light Sussex will be tainted because of the previous mating, it is hardly likely that we shall succeed in convincing him, even if you show him the pure Light Sussex chicks from the mating. He will tell you they are tainted, and the Brown Leghorn blood will out in the next generation, and if by any chance one or two came with yellow legs, he would say: "What did I tell you?" and it would be no good telling him this was not due to the previous mating the hens with the Leghorn, but was a case of reversion to the Light Brahma from which the Light Sussex was bred, because he would not believe you. But you might gently suggest to him that it is the egg that is fertilised, and not the hen. (2) The glass panels at the back of the intensive house at Rudgwick are sliding, and these will be opened during the very hot weather to admit more air and light. Yes, these are floor lights. Certainly write again, we are always interested in the views and experiences of our readers.

J. R. H. (Bath) complains that her fowls are out of condition. The gardener has been putting garden lime on the dropping boards. Would this account for their being out of condition? No, we cannot attribute it to this cause. The birds would hardly be likely to eat the lime, and its mere presence on the dropping boards would not cause them to become out of condition. She is anxious to mark her eggs, as many of her customers ask for them, but the ink she is using penetrates right through the shell. What ink should she use? In answer to this query, any ink will penetrate through the shell of the egg, as it is porous, if the pad is soaked too heavily. In that event it would be best to press the stamp on a piece of blotting paper before stamping the egg. Her next question as to what shades to use for a small house to keep the rain out, as she has tried canvas, but without avail. Unbleached calico spread on the frame and then painted with boiling linseed oil would be most suitable.

R. G. C. (Aberdeen) would like to know if a pure Black Minorca cockerel and Light Sussex pullets would make a sex-linked cross, and how would he distinghish the pullet markings of the chicks. He also wishes me to tell him the best sex-linked cross, using Light Sussex on the female side. He believes his Black Minorca cockerel would give him excellent results. There is no sex-linkage with a pure Black Minorca cockerel and Light Sussex pullets. What would probably happen is that a large majority of the chicks would be pure black, but as the pullets grow up they might develop bronze feathers in their neck hackle and flights. They would probably make good layers, and a fair table bird; but, of course, the dark legs would be against their being so good as the pure Sussex. A R.I. Red cockerel or Brown Leghorn would give my correspondent a good sex-linked cross, which should be good producers and fair table birds.

J. M. (Hereford) has two lots of chicks—one six weeks old and the other three weeks. They both did well until they were a fortnight old. After that the feathers seemed to grow more quickly than the chicks themselves, which were hardly big enough for their age. My correspondent describes the system of feeding, and I can see nothing wrong with this. My opinion is that the trouble is due to overcrowding or too high a temperature in the brooder, and he should see whether this is the case or not. Had there been anything wrong with the feeding we should have expected a high mortality; but he must check this overcrowding, or the mortality will come later, and he will not rear healthy or vigorous chicks. It is to one of these two causes that his trouble is due.

POST-MORTEMS.

G. F. F. The post-mortem examination of the chick showed that it was suffering from an exceptionally heavy infestation of the gape-worm, syngamus trachealis, the inflammation from the trachea having extended to the bronchial tubes and adding bronchitis as a complication. This would account for the symptoms being rather out of the ordinary and for the extra difficulty in breathing noted. I enclose a leaflet on Coccidiosis, not because the two diseases have anything in common, but because the sanitary measures necessary for the prevention of spread are practically identical. The treatment may be either by inhalation of crude carbolic acid fumes, which are produced by pouring some on a hot shovel or brick, the birds being placed in a basket which is held in the fumes, or by dusting in among them when confined in a box or other close receptacle, a powder composed of one part of finely-divided camphor and three parts of precipitated chalk.

C. J. C. P. I should strongly advise you to send me several more chicks for examination (the fee already paid will cover), as this one can hardly be typical of what is the trouble. This one suffered from a generalised peritonitis, due to the decomposition of a persistent yolk sac, which, of course, effectually masked any other lesions that might prove diagnostic. Microscopical examination of the bowel contents revealed no coccidia or other parasites, but that does not follow that others will be equally free.

Mrs. D. F. The post-mortem examination of the two W. Wyandottes showed that there was intense inflammation of the crops, proventriculi and intestines, and congestion of the livers and kidneys, and further examination of the crop and stomach contents showed that the conditions found were due to lead poisoning. Shells and a large amount of grit were also found in the gizzards of the dead birds. Where they obtained the lead from is, of course, conjecture, but old paint pots, putty, etc., are a common source of lead poisoning both in poultry and animals.

P. R. P. The post-mortem examination of the chicks showed that the trouble was rickets, and the usual digestive derangements that accompany this disease. There was very well marked deficiency in the bone calcification, any of these bones being capable of being bent in any direction, or to any angle without fracture, and the skull bones (?) were so devoid of bony matter that the slightest knock or pressure would be sufficient to cause such brain symptoms as described. It looks as if in this case—others under exactly similar condition of housing and feeding doing well—that hereditary predisposition to this disease was a potent factor in its appearance in this particular lot. Add two per cent. cod liver oil to the mash daily, fish meal to the ration, and give a full supply of green food, and allow exercise in the open air, or at least **in unfiltered daylight.** There were no visible lesions of Coccidiosis, neither were there any traces of the organisms found upon microscopical examination of the bowel contents.

Correspondence.

HEAVY v. LIGHT BREEDS.

To the Editor of "Eggs"

Dear Mr. Newman,—I see that Mr. Mackenzie in "Eggs," of March 3rd, again quotes Harper-Adams' figures in proof of the superior laying value of the heavy breeds.

Mr. MacKenzie is doubtless aware that the Harper-Adams' Test is carried out on very expert, highly specialised, small-house lines—every bird receiving individual attention, wet mash in addition to dry mash feeding, and so forth. Moreover, one is justified in presuming, I take it, that those "heavies" entered have been **bred to lay,** and thereby lost a deal of their "heaviness" in the process!

Mr. MacKenzie voices the opinion that the question of strain does not enter largely into the discussion. In that case I can only agree to differ with him, for I continue to become more and more convinced that, given commensurate management, this question of strain has a vast deal to do with it. I hold a brief for the Leghorn, but if I **had** to choose between them give me the tip-top strain of "heavy" in preference to the "dud" Leghorn any old day! But then we are not supposed to be discussing "duds," are we—particularly when, as Mr. MacKenzie points out, it's a comparatively simple matter weeding out those "duds," in the case of the Leghorn anyway!

I can only repeat that it doesn't appear to me altogether reasonable, if I may say so, to adopt a line of argument, in a discussion avowedly based on broad commercial lines, upon such Laying Test figures—though if Mr. MacKenzie still insists I would ask him to refer back to the 1923-24 Test, when a pen of my White Leghorns outlayed both Gold Medal Pens of Rhodes and Wyandottes, putting up an average of over 35/- worth of eggs apiece during the forty-eight weeks—and, I dare suggest, probably cost considerably less in "raw material," i.e., foodstuffs, for in this case, of course, the question of housing, floor space, etc., doesn't enter into it, though when we get back to the commercial proposition we all know just how much those same questions of housing, run area, and so on, **do** enter into it!

I'm running as many as 300 Leghorns in houses 60 x 15—barely six inches of perching room apiece, and one small broody coop (at present vacant) between the lot of them—and they are thriving! Could I hope to pack in the same number of "heavies" and expect them to thrive equally well?

Sincerely yours,
W. HAYLAND WILSON.

COMMERCIAL POULTRY FARMING.

Dear Sir,—Many of your readers are much interested in Mr. Toovey's articles. We should be so glad if he would tell us what "alterations in the lay-out and organisation of his farm" enabled him to recover, after the assistance of Mr. Brain's treatment, the very heavy losses and expenses attendant on the attack of roup to his flock, and turned the year's balance sheet to a profit.

We note he uses no incubators or hovers, and would be glad to know how he secures broodies to hatch as many as he requires on such a large farm?

Would he tell us what he thinks should be the expenses and rearable profit to be expected from a flock of 1,000 layers? The question of the Intensive System seems much argued for and against. Does Mr. Toovey recommend entirely outside and non-intensive methods? How long does he consider pullets should be before laying on such a system?

Hoping you may be good enough to get him to answer these questions for the benefit of a beginner much interested in the industry, but discouraged by reports of very different prospects from such as are sometimes claimed by contributors to your articles.

Yours truly,
M. DIXON SHAW.

NATIONAL LAYING TEST, 1926-27.

Arrangements have recently been completed for the amalgamation of the National and "Daily Mail" Egg-Laying Tests, both of which have hitherto been carried out side by side, and under the same management at the London and North Eastern Company's Farm at Bentley. The united test will be known as the National Egg-Laying Test, promoted by the "Daily Mail" and the National Utility Poultry Society, in co-operation with the London and North-Eastern Railway Company.

The special features of both tests will be preserved, including sections for pure-bred and first-cross stock. New sections will also be provided for small-holders and general farmers (including fruit farmers and market gardeners), the object being to give encouragement to these classes of poultry-keepers.

In addition to the numerous cups, medals, and other prizes, as offered in previous tests by the National Utility Poultry Society, the London and North-Eastern Railway, Breed Clubs and others, the "Daily Mail" will give £550 in cash prizes.

The schedule for the 1926-27 test has now been settled, and the prize-money allocated as follows:

Section 1. Championship.—Cash prizes: £25, £15, and £10 to the three leading pens of (a) sitting breeds, and also of (b) non-sitting breeds.

Sections 2 and 4.—Cash prizes: £20, £10, and £5 to the three leading pens of non-sitting breeds in these sections.

Sections 5 to 8.—Cash prizes: £20, £10, and £5 to the three leading pens of sitting breeds.

Section 9. Small Breeders' Section.—Cash prizes: £8, £4, and £2.

Section 10. Teams' Section.—Cash prizes: £15, £7, and £4.

Section 11 and 12. General Farmers' Section.—Cash prizes: £50, £20, and £10, and £5 in each section.

Section 13 and 14. First-Cross Section.—Cash prizes: £50, £20, £10, and £5 in each section.

Sections 1 to 10 are for pure-bred stock, and Sections 11 and 12 for pure-bred and first-cross stock.

The detailed particulars and rules are in course of preparation, and when ready will be advertised in these columns.

Commercial Poultry Farming.

By T. W. TOOVEY.

V.

In advocating more extension, more spacious developments, in getting nearer to nature rather than intensifying, I am writing for the commercial farmer—not for the poultry-keeper.

I have indicated what I think are the maximum numbers to be kept to the acre, but by all means give more space still if it is available, and can be used without increasing the costs of labour beyond 1,000 per man.

"Safety first" was in my mind when I reorganised this farm last summer, to be able especially to check and control disease in its incipient stages. The methods adopted to prevent and cure disease will be explained later. The fundamental principle underlying the whole scheme is a factor in that direction, viz.: All land to have a prolonged period of rest at regular intervals—free from all occupation by live-stock of any kind. The land and appliances for chicken rearing every year, the land and houses for laying stock, a complete rest for a long period in one year out of three, with only partial occupation for the greater part of the remainder of that year.

The system lends itself to the segregation of the flocks into their various ages, and ensures that the growing pullets are kept in grades, that they do not come in contact with adult stock, and that when moved from the chicken houses at about three months old they arrive in their permanent quarters for the next two years, or a little more. It provides clean and rested land and houses for the pullets of each year without sacrificing a single old hen until she has fulfilled her career of usefulness, some time at the end of October. It provides for a high autumn egg production, rather than in the spring when eggs are cheap.

In Mr. Meekings' admirable article in the Year Book he emphasises the importance of realising the table values of the hens and cockerels on a commercial farm. This point has not been lost sight of, both in breeding and marketing, although eggs must, and always will be, the chief source of income. I cannot think that any intensive system ever can, or ever will, produce eggs of the quality obtainable from hens that enjoy the advantages of freedom on ranges that approximate closely in practise to free range.

Incidentally the new system has allowed me to continue a practise in feeding that was commenced in February, 1925, with the hope of checking the spread of the epidemic that commenced then, viz., trough feeding. We have never since reverted to feeding corn in the litter, and neither do we intend doing so. This, at any rate, is one of the good things that has come out of the evil. It has resulted in an economy in cost, and in better production, than I could have conceived possible. I am most anxious not to overstate anything, so when I say I think this system of feeding has resulted in an extra profit of one shilling per head per annum I am not over-rating it. I am aware how universally this system of feeding corn in the litter has been adopted by the industry, and should therefore have been dubious about condemning it if my contention had not been supported by a long trial, and by the facts and figures that exist in my records and accounts. I think a complete misapprehension has existed as to the exercise needed by the laying hen. Exercise and occupation she requires, most certainly, but the exercise should be of a gentler form than "the hard labour" involved by scratching for her living in deep litter; that the work is hard will be evident, if the toe-nails of old hens are examined.

With food available at almost all times in the troughs, hens show a far greater readiness to roam widely over the ranges. They feed intermittently, as is the nature of all birds. Of course, if kept on intensive lines, there is no alternative but litter feeding. With trough feeding it is possible to feed with an exactitude that is possible in no other way, an ordinary intelligent, observant man can feed to the last ounce required, and that means to the full requirements, for laying hens must have all they want. In order to do this with considerable numbers, by feeding corn in the litter, more is given than necessary. It is impossible to avoid doing this, or of finding out mistakes until too late and the corn has fallen through the litter to become musty and tainted by the excreta with which it is mixed. In feeding all other domestic animals, except poultry, care is taken to keep their food distinctly separate from their excreta, whereas with poultry it is deliberately mixed with the same.

The system employed here is as follows :—For the first feed in the day soft food is given in the troughs, sufficient in quantity to last several hours. About 2 p.m. the birds are fed again with corn in the troughs. Any mash that may remain is scraped to one end before putting the corn in.

Every morning the troughs are scraped clean and cleared of any residue of food there may be; there should be very little. This is thrown on the grass. It is desirable to let each poultryman feed the same houses daily. If he finds much corn left in the morning he will know he gave too much the afternoon before. In the afternoon he will note whether he gave too much or too little mash in the morning. There should be just a little left. The corn being fed, the egg collector will later on keep an eye on the troughs, and if he considers the amount left is deficient he will add a little more. By this means it is possible to obtain an almost perfect system of feeding, and the success or failure of egg farming depends very largely on feeding. I think it goes without saying, that the severe exercise entailed by litter feeding must absorb a large proportion of the energy supplied by the food. If trough-feeding is practised, it is above all things important that the troughs should be adequate in capacity and properly designed, which they seldom are.

The essentials of a good trough are:—(1) Capacity high in relation to the birds to be fed from the same, as it should not be more than three-quarters filled.

(2) It must be designed so that the birds cannot get in it to scratch, and also, that when they perch on it, it will not be readily fouled.

(3) It should be raised about one foot from the floor. A trough constructed as follows will about fill the bill:—Take three boards, each 5 inches wide, one 1 inch thick, two ½ inch thick. The lengths for a hundred birds should be 8 feet, as two troughs for 100 birds will be ample, 8 feet long each.

Nail the half-inch boards to the one-inch board, there will then be a fitting 8 feet long and 4 inches deep—5 inches wide inside measurements. Nail three pieces of batten—1 ft. 6 ins. long across the bottom—one at each end and one in the centre; these will then project 6 ins. beyond the sides; these are intended to carry the perches. Take three pieces of board 9 ins. long, 5 inch wide, and 1 in. thick, slope them at one end to two inches wide. Two of these form the ends—one is placed in the centre as a tie and support. Nail a 2 in. by 1 in. batten 8 ft. long to the three pieces to form a top rail, incidentally it will form a good perch. Nail two battens, each 8 ft. long, to the three pieces of 1 ft. 6 ins. battens, nailed crossways to the bottom; these two battens form the perches, on which the birds sit to feed, and there must be 4 ins. between them and the sides of the trough, so that when the birds sit on the top rail the droppings will fall between the trough and the two side perches. The trough is now finished except for the legs, two battens of such a length that the bottom of the trough should be one foot from the floor of the house, should be nailed securely to each and diagonally. The trough will not then readily turn over.

LAINDON LAYING TEST.

Fourth Report.

Section 1. Light Breeds (Five **Pullets**).—Rowland Cook (W.L.), 254 eggs; H. Maycock (W.L.), 243; L. J. Willis (An.), 201.

Monthly Certificate.—H. Maycock.

Section 2. Heavy Breeds (Five **Pullets**).—L. Potter (R I.R.), 256 eggs; Rowland Cooke (R.I.R.), 236; Mrs. Fowler (R.I.R.), 182.

Monthly Certificate.—Rowland Cooke.

Section 3. Light Breeds (Single **Bird**).—A. Fox (W.L.), 60 eggs; Charles Newman (W.L.), 55; J. A. Howarth (W.L.), 51.

Monthly Certificate.—J. Eccles.

Section 4. Heavy Breeds (Single **Bird**).—J. A. Howarth (W.W.), 85 eggs; J. Eccles (W.W.), 72; Miss N. Grubbe (R.I.R.), 70.

Monthly Certificate.—G. L. and H. B. Gibson.

Section 5. Gift (Any Variety).—W. Dillenz (R.I.R.), 79 eggs; Miss N. Grubbe (W.L.), 69: E. Mybrea (R.I.R.), 63.

Monthly Certificate.—Miss Grubbe.

First-Class Certificate for highest scoring pullet for month.—J. Eccles (W.L.), value 3s. 9½d.

THE NATIONAL UTILITY POULTRY SOCIETY.

NATIONAL EGG-LAYING TEST, 1925-26.

Report for the Fourth Month—24th January, 1926, to 20th February, 1926.

With favourable weather conditions prevailing throughout the fourth month the seasonal rise in production made steady progress, and the tally of eggs reached 23,089—an average of 15.09 eggs per bird. These figures compare with 20,506 and 13.31 respectively for the previous month.

The lowest daily collection was 701 eggs on the first day of the month, and the highest 953 on the last day.

Mr. J. E. Hughes' White Wyandottes put up the best score for the month in the Championship Section with 213 eggs, and in the Five Birds' Sections the Worcestershire Poultry Farm's White Leghorns come first with 112 eggs, followed by Mr. W. A. P. Morgan's Rhode Island Reds with only one egg less.

The highest individual bird score to date is held by Mr. A. K. Spiers Alexander's White Wyandotte No. 169, with a total of 95 eggs, of which seven were second grade. For first grade eggs this is beaten by Mr. S. E. S. Burnett's pullet No. 828, also a White Wyandotte, with a score of 92 eggs of that grade and two seconds.

Size of egg showed an all-round improvement, the proportion of first grade eggs reaching 87.95 per cent., which may be considered satisfactory. The general character of the eggs was also good, both in regard to shape as well as thickness and texture of shell. There is a noticeable improvement in the colour of the eggs laid by many pens of White Wyandottes, which breed continues to hold the highest average to date, namely, 55.46 eggs per bird.

Full details of the 1926-27 test will be issued shortly.

J. N. LEIGH.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs and Points respectively.

Section 1. Championship (Ten Pullets).—A. K. Speirs Alexander, Roughton, Norwich, 748, 748; J. E. Hughes, Standon, Ware, Herts, 684, 684; Miss N. B. Maddison, Dane Hill, Sussex, 659, 657; Leslie Williams, Liss, Hants, 626, 626; R. A. and A. M. Johnson, Chalford, Glos., 620, 620; W. M. Golden, Leire, Rugby, 618, 617.

Section 2. White Leghorns (Five Pullets). — Worcestershire Poultry Farm, Tardebigge, Bromsgrove, 400, 400; John Potter, Worsley Mesnes, Wigan, Lancs., 353, 353; Brig.-Gen. A. C. H. James, Bletchingley, Surrey, 337, 337; H. R. Hunter, Twyford, Winchester, 330, 330; Mrs. E. M. L. Knight, Odstock, Salisbury, 322, 322; Mrs. Heber-Percy, Hodnet, Salop, 320, 319.

Section 3. Black Leghorns (Five Pullets).—Richard Rodwell, Nelson, Lancs. 338. 331; Frank Snowden, Cowling, Yorks., 321, 321; W. P. White, Colne, Lancs., 279, 279; Miss Mallam and Mrs. Gifford, Wantage, Berks., 264, 264; I. Margerison, Towneley, Burnley, 258, 257; Mrs. E. Mignon Clay, Long Preston, Leeds, 246, 246.

Section 3a. White Bresse (Five Pullets).—H. R. Hunter, Twyford, Winchester, 269, 269; John Thornhill, Great Longstone, 268, 268; E. P. Townley, Woodcote, Oxon, 265, 264; Sir Charles McGrigor, Bart., Bake, St. Germans, Cornwall, 231, 231; K. A. Crawford, Dilham, Norwich, 220, 220; Mrs. N. Wilkinson, Farnham, Saxmundham, 217, 216.

Section 4. Any Other Light Breed (Five Pullets).—J. R. Joy and Co., Tunbridge Wells, Sussex, 290, 278; J. H. Thompson, Alton, Hants, 277, 276; Stanley Street-Porter, Ely, Cambridge, 274, 274; Hon. Marjorie Cross, Broughton-in-Furness, 269, 269; Miss E. Cavanagh, Terenure, Dublin, 224, 224; Crossley Sykes, Inveresk, Midlothian, 220, 220.

Section 5. White Wyandottes (Five Pullets).—S. E. S. Burnett, Arbroath, 389, 389; G. H. Rayner, Grantham, Lincs., 389, 389; Capt. Thompson, Shrewsbury, 383, 383; S. and T. Greenall, Grantham, Lincs., 382, 379; Arthur Gawthropp, Quinton Manor, Northampton, 377, 377; Capt. H. St. G. Maxwell, Leiston, Suffolk, 363, 363.

Section 6. Rhode Island Reds (Five Pullets).—J. B. V. and W. Cummings, Carlops-by-Penicuik, 373, 373; A. H. Donkin, Shorncliffe, 319, 319; W. and T. Salt, Enderby, Leicester, 296, 293; J. Ashworth, Withnell, Chorley, Lancs., 286, 286; H. R. Hunter, Twyford, Winchester, 286, 286; Gettern Model Poultry Farm, Ainsdale, Southport, 285, 284.

Section 7. Sussex (Five Pullets). — Mrs. E. M. L. Knight, Odstock, Salisbury, 331, 331; Brig.-Gen. Kincaid-Smith, Clacton-on-Sea, 286, 286; Edward Clough, Uplyme, Lyme Regis, 286, 285; Wilson Beattie, Rothersthorpe, Northampton, 283, 283; F. Rossall-Sandford, Shrewsbury, 259, 259; Mrs. F. G. Poole, Tunstall, Suffolk, 257, 257.

Section 8. Any Other Heavy Breed (Five Pullets).—Miss Harrison Bell, Welwyn, Herts., 338, 338; Miss P. Mills, Bishop's Castle, Salop, 310, 310; Miss C. Beck, Great Amwell, Ware, 297, 297; A. A. Plimpton, Beverley, E. Yorks., 300, 296; Charles Prior, Ropley, Hants., 279, 279; Col. S. Sandbach, Abergele, N. Wales, 248, 248.

Section 9. For Small Breeders (Two Pullets).—E. Fownes, Hanworth, Middlesex, 160, 160; G. E. Pearson, Epperstone, Notts., 160, 160; Fred Deakin, Penyffordd, Chester, 157, 157; J. M. Johnston, Southampton, Hants., 156, 156; M. W. Brightmore, Burbage, Leics., 143, 143; Walter Westwood, Shotton, Chester, 132, 132.

WADHURST BRANCH LAYING TEST.

October 15th, 1925—February 28th, 1926.

The results to the end of February again show the Rhode Island Reds leading, and tend to prove that in exposed localities with cold heavy soil, that the "Heavies" are more profitable than the "Lights," especially for winter egg production.

Figures are Eggs and Points respectively.

J. Everard (R.I.R.), 101, 953; Daldy and Lecky (R.I.R.), 90, 900; Luff and Bennett (W.L.), 72, 627.

Modern Poultry Feeding

By TOM NEWMAN.

A Bedfordshire correspondent writes :—

> "I am sending you this sample of poultry food which a traveller is trying to persuade me to buy, telling me that it is much superior to fish meal in the mash, both for chicks and adult stock. Would you kindly give me your opinion as to the ingredients, and if you think it is superior enough to fish meal as to be worth 52s. per cwt.?"

Close examination of this sample reveals a percentage of meat meal, some ground cereals, with Cod Liver Oil and some condiment added. This could never take the place of fish meal in the mash, and the price would render it uneconomical if it could. If my readers wish to get results which this expensive article is said to produce, all they have to do is to add two teaspoonfuls of Cod Liver Oil to the pound of mash.

S. P. B. A.

Food Purchase Scheme.

IMPORTANT ANNOUNCEMENT.

THE COUNCIL OF THE S.P.B.A. HAS PLEASURE IN ANNOUNCING THAT ARRANGEMENTS HAVE NOW BEEN MADE WHEREBY MEMBERS CAN BE SUPPLIED WITH FOODSTUFFS AND THE S.P.B.A. MASHES FROM ALL THE VARIOUS DEPOTS, IN LOTS OF 1 CWT. F.O.R., BAGS FREE.

MEMBERS CAN BE SUPPLIED AS FROM THIS DATE.

FULLER PARTICULARS WILL BE FOUND IN ANOTHER PART OF THIS ISSUE.

TOM NEWMAN,
SECRETARY.

WHY HENS EAT GRIT.

I have taken the following from the "Poultry Tribune', of March, 1926.

The article is of particular value in view of the emphasis placed by Dr. Kaupp on the fact that the "kind of grit makes a difference."

On many occasions, in these columns, I have pointed out the absurdity of feeding the hard flint grit which is so constantly recommended, and drew attention to the value of limestone grit in the columns of "Eggs" many years ago, long before it was commonly used in this country.

On one point, however, I may state that we are not quite in agreement with Dr. Kaupp. It can hardly be called an experiment, but was the result of observation for many years in a certain laying test, where oyster shell and flint grit were supplied; the birds entirely ignored the flint grit, consumed great quantities of oyster shell, so that the flint grit was no longer supplied. The birds kept in perfect health and production without its aid, relying entirely upon the oyster shell.

I would only make one reference to the question of feeding grit to young chicks. On more than one occasion post-mortems have revealed that the intestines have been torn by the use of the hard flint grit, which is chiefly silica, and is of no value whatever, and in the test to which I have previously referred, I should say that oyster shell, in spite of the greater cost, was much preferred to limestone grit :—

WHY HENS EAT GRIT.

By Dr. B. F. KAUPP,
North Carolina State College at Raleigh.

Nature tells the hen what to eat and when to eat it. Not only this, but nature has gone further and produced a yolk in the egg, 47 per cent. of which is not used in the construction of the perfect chick before it comes from the shell, but stores it up in the form of the abdominal yolk so as to form a perfect food for the chick for the first three days, so that the hatch may be over and the mother may take the chick in quest of food. This power of the bird to seek its food, in the wild state, is called instinct. Instinct of the domestic fowl that has been preserved from its wild jungle ancestor, the Sonneretti, has been studied by the Experiment Station Poultry Department of the North Carolina State College at Raleigh. One of the things they have been studying for the past twelve years is the exact kinds and quantities of minerals the hens need to grow and produce eggs as well as to maintain their health and happiness. It was found that the grains and mashes were short on some of these minerals, and further studies showed that one of the reasons why hens eat grit is to supply some of these lacking minerals. And this has been confirmed by Experiment Stations, as Kentucky, Wisconsin, and others.

Fate of Grit in the Fowl.

In the studies it was found that the hens preferred bright limestone to other kinds of grit, and that they also preferred a hard grit. On opening these birds and examining the gizzards at different times it was found that a soft grit would not grind the feed, as such pebbles would crush. By watching the gizzard work it was observed that the powerful muscles ground in a rotary motion, rubbing the grain and the grit together and reducing it to fineness so that it could be passed to the small intestines and digested and utilised by the fowl. It was found that oyster shell soon went into solution under the grinding and the strong acid of the gizzard or grinding organ of the hen. Also by analysis of the mineral intake and outgo of the body it was found that a calcium carbonate grit not only was hard enough to grind the feed, but also gave off calcium carbonate which the feed was short in. A study was then made of the composition of the egg, and it was found that it contained more than a half per cent. calcium or lime and that the egg shell contained 91.44 per cent. pure calcium carbonate and that the balance consisted of but 2.03 per cent. magnesium carbonate and the balance organic matter. The magnesium was not short in the feed, but the calcium carbonate is short.

The Kind of Grit Makes a Difference.

The kind of grit makes a difference, they found, for it was discovered that some of the mineral salts obtained from grit were needed and some were actually injurious, and later in practice was so proven. They found some grits made from limestone which carried nearly pure calcium carbonate, and these grits were good in that they were shown to furnish the needed calcium carbonate, and in this way stimulate egg production Others were not almost pure calcium carbonate, but contained especially large quantities of magnesium, and when the magnesium was over 5 per cent. it gave trouble. Again some contained acid-forming materials, and these were not so good because they overtaxed the body's capacity to keep the reaction of the blood on the alkaline side. To back up these findings we find in Winslow's Veterinary Materia Medica that magnesium carbonate acts as a laxative, and also stimulates the kidneys, and it was found when excessive amounts of some grits were used that an over-stimulation resulted in kidney disease and diarrhoea, with a falling off in egg production, and such a calamity when eggs are high is to be avoided. Hence the advice to be sure of the analysis of the grit you are using. These same results are to be expected from excessive amounts of the oxide and some of the other forms of magnesium. Magnesium sulphate is Epsom salts, and it was shown a continued feeding of this would be very disastrous to the birds. It was found that where the grit was almost pure calcium carbonate, with only small amounts of the other products mentioned, no injurious effects resulted, but on the other hand more than 5 per cent. magnesium grit is to be avoided.

With these facts it was found that certain grits as indicated above did double duty. They were hard enough to grind the feed and at the same time gradually gave to the body calcium carbonate that was so badly needed because the feeds are short in this mineral. It was then shown practically with flocks that oyster shell was no longer needed; that is, the grit (limestone) took the place of both grit and oyster shell.

NORTHERN UTILITY POULTRY SOCIETY.

LAYING COMPETITION, 1925-26.

Fourth Report—January 24th to February 20th, 1926.

The weather for this period has been mainly mild with a short spell of snow and frost starting on the 9th of February, and lasting four days. Torrential rains have been the order, with a spring day sandwiched between. Seven days have been fine.

The yield of eggs has been very good, and as a result of the continued absence of illness of any kind, the returns for the sixteen weeks are likely to show an average not often obtainable in this part of the country Two birds (reserves) have died sudden deaths—one from peritonitis, and one heart failure—both of which were in full lay, this bringing the total loss during the winter period of sixteen weeks up to three.

Only three birds have been broody; a few fresh cases of moulting are noted.

DUCK SECTION.

This section remains unsatisfactory in the returns, and while most competitors have laid at some period of the winter, only one or two have been anything like consistent, and it is noted that a few days of snow and frost above mentioned stops laying practically at once Thirty-six eggs were trapped the first day of the frost, but by the fourth day these had dwindled down to four, and it's easier to get them stopped than started again.

C. G. SKIPPER, Manager.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs and Points to date respectively.

Section No 1. Championship.—Leslie Williams (W.W.), 544, 544; Messrs. Longworth Bros. (W.L.), 499, 499.

Section No. 2. White Leghorns.—Robert H. Fryers. 341. 341: F. C. Tomlinson, 304, 304: Capt. C M. Leatham, 279, 279; William Dugdale, 264, 264; Richard Harrison, 275, 264.

Section No. 3. White Wyandottes.—Bolton and Gardner. 355, 355: R. H. Aspden, 342, 342; Mrs. J. H. Hill, 309, 309; Arthur White, 306, 306.

Section No. 4. Any Other Variety (Non-Sitting).—K. A. Crawford (W. La B.), 272, 268; Arthur White (B L.), 214. 214: Robert A. Fawsett (B.L.). 207, 207; Owen Rawlinson (B.L.), 199, 159.

Section No. 5. Any Other Variety (Sitting).—E. A. Tingle and Son (R.I.R.), 369, 369; Gettern Model Poultry Farm (B.R.), 313, 313;

(Continued at Foot of Column Next Page).

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

WHEAT IN THE EGG.

Mr. A. T. Tomey writes:—

> "The following may be of interest to your readers. A neighbour's hen laid an abnormal egg weighing 3¾ozs. When the egg was boiled, the first and second spoonfuls taken out consisted of the white, the third spoonful contained the whole yolk, exceptionally small, and the fourth spoonful was composed solely of whole wheat. How did the wheat get into the egg?"

Perhaps some of my readers can explain. I cannot. Some two years ago a Nottinghamshire reader wrote stating that his wife had broken an egg to make a pudding, and found in the yolk a halfpenny. How the halfpenny got there I am still puzzled to know. Can any of my readers solve the problem?

FURTHER EXPERIMENTS AT WELLINGHAM.

The following interesting account of the Intensive Rearing of Table Poultry at Wellingham has been received from Miss Malcolm.

It will be seen that the mash is exactly the same formula which I drew up at the request of the Council for the experiments which proved so successful last year, with the single exception that 5lbs. of fish meal has been substituted for 5lbs. of dried milk.

Our object last year in formulating this mash was to see the minimum percentage of dried milk which would give us results which had been attributed to the milk in previous experiments. Miss Malcolm presumably is calculating on the lime phosphates in the fish meal to be of equal value to those of the milk.

It will be interesting to know whether this is the case.

The average weight of the chicks in the first report is exactly the same as it was in last year's experiment.

INTENSIVE REARING OF TABLE POULTRY.

WELLINGHAM, 1926.

The house used for this experiment has been kindly lent to us by the Council of the S.P.B.A., by whom it was designed last year for their own intensive experiment for rearing of White Leghorn pullets for egg production. The house is described in an article by Mr. Newman on the experiment in the S.P.B.A. Year Book, so that it is unnecessary to repeat the description here, but I should like to remind readers that the windows are entirely removable, giving the maximum of air and light. The house is colour-washed light blue. The platform for the hover used for the 1925 experiment is again being used. It will be remembered that this is a square platform constructed of wire stretched on battens, and covered with hessian and raised some 4ins. from the ground, so as to allow plenty of bottom ventilation under the hover, holes being drilled in the floor beneath the platform.

A cross of Rhode Island Reds and Light Sussex is being used for the 1926 experiment. This cross has not been selected for its special quality, but merely because these two breeds are run on Wellingham Farm.

Two hundred chicks hatched 9th February were placed under the hover; five chicks which seemed smaller and weaker than the rest were killed, and five others, also kept under intensive conditions and from the same hatch, were brought in to replace them.

The litter used for the front of the house is peat moss; it is kept slightly damp by being watered through a fine rose. At the back of the house, divided by a low board, cut straw is used as a scratching litter.

The chicks were fed until the sixth day on:—1-3rd pinhead oatmeal, 1-3rd cooked flaked maize, 1-3rd steamed wheat. Separated milk was given on the sixth day, when the chicks were fed on the following dry mash:—20lbs. bran, 45 fine midds., 10 Sussex ground oats, 10 maize meal, 5 fish meal, 5 dried yeast, 5 soya bean. To this was added 30ozs. of the following mineral mixture:—60 sterilised bone meal and 20 common salt. Powdered oyster shell is also given, and liberal green feeds daily. It will be noticed that in place of the 5lbs. of dried milk given in the feeding experiment at Wellingham for 1925, 5lbs. of fish meal has been substituted, in order to make the mash more economical. Two wet mashes of the same mixture are given each day, beginning at the sixth day from the shell, two per cent. cod liver oil is fed in both dry and wet mashes.

It is proposed that the chicks should be weighed every fortnight. At the first weighing, 23rd February, the total weight of the 200 chicks was 34lbs. 7ozs. The average weight of each chick thus was 2.755ozs.

No chicks have died up to date, the five killed representing a loss of 2½ per cent. The chicks are extraordinarily lively and well, and show every sign of perfect health and vigour.

A costing system is being kept, which includes not only food given to the chicks, but also the oil used for the hover lamp, and a proportion of the attendants' time. The total cost per chick will be calculated up to the time the birds are placed in the crates, the cost of feeding in the crates being estimated separately.

We are most grateful to the S.P.B.A. for giving us the opportunity of doing this work in their house, as it seems to us to be of great interest. B. MALCOLM.

Gilbert A. Leonard (B.R)., 290, 290; Harold Turner (R.I.R.), 285, 285.

Section No. 6. Small Breeders.—Mrs. Clara Egar (W.L.), 213, 213.

Section No. 7. Cross-breds.—James Stuart (B.L. x R.I.R.), 197, 197.

Section No. 8. Two Birds.—Mrs. E. McKeown (W.W.), 129, 129; Misses Leason (W.W.), 101, 101; Henry Purves (W.W.), 95, 95; Eustace A. Wilkinson (W.W.), 90, 90.

Section No. 9. Single Birds.—R. A. and A. M. Johnson (W.W.), 75, 75; Crossgar Pedigree U.P. Farm (R I.R.), 70, 70; Miss R. K. Tallis (W.W.), 57, 57; W. B. Grimshaw (W.L.), 59, 50.

Section No. 10. Local Section.—Ernest Jackson (W.W.), 223. 223; Joseph Trickett (W.L.), 208, 208.

Section No. 11. Ducks—G. H. H. Simmons (K.-C.), 110, 110: Wilson Beattie (K.-C.), 99, 99; Fred Gardner (A.R.), 90, 90; R. A. and A M. Johnson (W.R.), 83, 83

Section No. 12. Ducks.—G. H. H. Simmons (K.-C.), 65, 65; R. A. and A. M. Johnson (K.-C.), 35, 35; Mr and Miss Streatfield (K.-C.), 30, 30; Capt. A. St. G. Maxwell (K.-C.), 23, 23.

FOOD PURCHASE SCHEME.

From a number of letters recently received, it appears that it is not a well-known fact that grains of every description can be purchased under this scheme.

May we therefore state, that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns.

We cannot give prices here, as space will not permit, but price lists will be despatched immediately to any member, if application is made to this office.

Referring to the odd cwts. which are now to be supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown. This is to cover the extra expenses and handling, which the one cwt. business involves.

PRICES OF MASHES, ETC., PER CWT.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	10/9	10/9	11/0	11/6
F O.R. LIVERPOOL	11/9	12/0	13/3	13/3
F.O.R. LONDON	11/6	11/6	12/6	12/9
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN ...	11/0	11/0	11/6	12/3
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/0	11/0	11/9	12/6
F.O.R. SOUTHAMPTON .	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH ...	12/0	14/0	12/6	14/3
F.O.R. ABERDEEN	12/0	13/6	13/6	13/0
F.O.R. HARROGATE ...	11/6	11/6	12/3	12/9
F.O.R. GLASGOW	12/0	12/0	12/0	13/0
F.O.R. STAFFS	11/0	11/0	12/6	12/3
FO.R. SUSSEX (East) ...	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/3	10/9	11/6	11/3
F.O.R. SUSSEX	11/6	11/6	12/6	12/6
F.O.R. BRADFORD	12/6	12/3	13/3	13/3
F.O.R. BIRMINGHAM ...	11/6	11/6	12/3	12/6
F.O.R. GREENOCK	11/6	12/0	12/9	13/3
F.O.R. TEWKESBURY ...	11/9	11/9	13/0	13/3
F.O.R. BOLTON	11/9	11/9	12/9	12/9
F.O.R. MIDDLESBROUGH	11/3	11/0	11/3	12/3
F.O.R. PARTRIDGE GREEN, SUSSEX	11/9	11/6	12/3	13/9
F.O.R. HULL	12/3	11/6	12/3	12/9

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	16/6	14/0
F.O.R. LIVERPOOL	18/3	14/9
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEICESTER	16/9	14/9
F.O.R. KING'S LYNN	17/0	14/9
F.O.R. BELFAST	18/0	16/9
F.O.R. BRISTOL	17/3	14/9
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	14/6	13/6
F.O.R. HARROGATE	17/6	15/3
F.O.R. GLASGOW	17/0	15/0
F.O.R. STAFFS	17/0	14/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	17/0	14/9
F.O.R. SUSSEX	18/0	14/9
F.O.R. BRADFORD	17/6	15/9
F.O.R. BIRMINGHAM	18/0	16/0
F.O.R. GREENOCK	18/3	15/0
F.O.R. TEWKESBURY	18/3	16/3
F.O.R. BOLTON	17/0	15/3
F.O.R. MIDDLESBROUGH	17/6	16/0
F.O.R. PARTRIDGE GREEN, SUSSEX	17/9	15/9
F.O.R. HULL.	15/9	14/6

	Per Cwt.		
Fish Meal (Pure White) ...	18/3	F.O.R.	LONDON.
,, ,, ,, ...	18/3	F.O.R.	BRISTOL.
,, ,, ,, ...	17/9	F.O.R.	SWANSEA.
,, ,, ,, ...	17/9	F.O.R.	TYNEMOUTH
,, ,, ,, ...	17/9	F.O.R.	GRIMSBY.
,, ,, ,, ...	18/3	F.O.R.	BRADFORD.

			Per Cwt.
MAIZE GRITS	F.O.R.	LONDON	10/6
MAIZE GRITS	F.O.R.	IPSWICH	10/6
S. G. OATS	F.O.R.	LONDON ...	13/0
S. G. OATS	F.O.R.	SUSSEX	12/6
S. G. OATS	F.O.R.	BRISTOL	12/9
MAIZE GERM MEAL	F.O.R.	LONDON	8/0
MAIZE GERM MEAL	F.O.R.	IPSWICH	8/0
MEAT AND BONE MEAL...	Carriage	Paid	15/3
MEAT MEAL	Carriage	Paid	15/9
ALFALFA	F.O.R.	LONDON	11/9
,, ...	F.O.R.	BRISTOL	11/9

We have now been able to procure a consignment of English Alfalfa Meal, and can offer this at 11/6 per cwt., F.O.R., from a town in the Midlands.

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

SPECIAL.

We are able to offer this week a special sample of Fish Meal, with the following analysis:—

OIL	4.5 per cent.
ALBUMINOIDS	55.60 ,,
PHOSPHATES	16.18 ,,

At following prices, F.O.R., London. Under 5cwts. orders 18/9 per cwt.; 5cwts. and upwards, 18/3 per cwt.

MIRFIELD AND DISTRICT POULTRY KEEPERS' ASSOCIATION.

LAYING TEST, 1925-26.

Fourth Monthly Report.

The fourth monthly report of the test, organised by the above association, closed on February 14th. The health of the flock is good. The following are the positions:—

Pen Section 1. Light Breeds, Three Birds.—H. Bradley (W.L.), 860 pts.; H. Cowgill (W.L.), 695; A. Mappin (W.L.), 693; N. Firth (W.L.), 667; Davey and Son (Bl. L.), 612; C. Tate (W.L.), 473.

Pen Section 2. Heavy Breeds. Three Birds.—J. Raistrick (R.I.R.), 1000 pts.; A. G. V. Ermen (R.I.R.), 913; Scott Bros. (W.W.), 828; A. G. V. Ermen (W.W.), 784; A. G. V. Ermen (W.W.), 775; P. Furness (R.I.R.), 734.

Single Bird Section. Heavy.—W. Saxton (W.W.), 616 pts.; N. Firth (W.W.), 489; J. Raistrick (W.W.), 462; Scott Bros. (W.W.), 334; J. Godfrey (R.I.R.), 321; Scott Bros. (R.I.R.), 308.

Single Bird Test. Light.—C. F. Fox (Bl. L.), 358 pts.; G. Shenton (An.), 344; N. Firth (W.L.), 295; A. Blackburn (W.L.), 280; H. Armitage (W.L.), 248; E. Saxton (W.L.), 248.

FINAL AWARDS OF THE SHEFFIELD LAYING TEST, 1925-26.

"Sheffield Telegraph" Challenge Cup, offered for the owner of the bird which scores the highest number of points.—Won by W. R. Staniforth, Todwick Poultry Farm, near Sheffield, whose White Wyandotte, No. 115, scores 265 points.

"Lockwood" Challenge Cup, offered to the member-owner (living in Sheffield district, 20 miles radius) gaining second place to "Telegraph" Cup.—Won by E. Root, Lodge P.F., Wingerworth, Chesterfield, whose R.I. Red, No. 155, scores 248 points.

Small Challenge Cup, for the owner of the bird laying highest number of first-grade eggs.—Won by S. V. Playle, Gorse Hill P.F., Nottingham, whose W. Wyandotte, No. 101, laid 85 first-grade eggs.

The winners in each section are as follows:—

Section 1.—1st, rose bowl, W. R. Staniforth, Sheffield, 265 pts.; 2nd, rose bowl, S. V. Playle, Mapperley, Nottingham, 261; 3rd, flower vase, E. Root, Wingerworth, Chesterfield, 248.

Section 2.—1st, rose bowl, Dixon Bros., Woodhouse, 225 pts.; 2nd, rose bowl, W. B. Bagshaw, Blyth, Rotherham, 216; 3rd, flower vase, W. Wadsworth, Penistone, 212.

Section 3.—1st, rose bowl, M. W. Brightmore, Burbage, Hinckley, 225 pts.; 2nd, rose bowl, W. Sykes, Ravenfield, Rotherham, 219; 3rd, flower vase, F. Heyworth, Millhouses, 217.

Section 4.—1st, rose bowl, C. Ashworth, Hyde, Cheshire, 173 pts., 2nd, rose bowl, A. Morton, Meadow Head, Woodseats, 155; 3rd, flower vase, L. Ridge, Birley Carr, 143.

Something about the Fancier.

By J. STEPHEN HICKS.

Broadly speaking, the fancier-breeder derives the whole of his income from the sale of sittings (among which will no doubt be included day-old chicks) and stock birds. It is therefore, in the main, his object to clear his farm annually of every single bird not required for breeding purposes. Supposing him thus to be in the average position mentioned, of rearing some 600 chicks each season, his permanent stock will not be greater than round about 100 head. Of these the conventional proportion, or perhaps slightly more, will be young birds, renewals; and in this connection it must be remembered that the fancier hatches so very early that to all intents and purposes his "New Year's Day" pullets are hens in their prime by the time he uses them the following winter.

And here, incidentally, another point crops up wherein perhaps our friend may claim an advantage—namely, in the method of resting his land, a policy which he is enabled to pursue annually. Taking it that the breeding pens are fully occupied from mid-November until June, they will probably be emptied for, at any rate, three months of the year (as shall be detailed later). The remainder of the ground is doubtless divided up into comparatively small runs—nurseries, growing pens, shading pens, etc., each of which, having served its seasonal purpose, is (bar accidents) left empty until again occupied similarly the following season.

The whole farm is occupied to the full during the three summer months, after which hard culling and sales begin to have an effect, and gradually during the autumn and winter pen after pen is emptied, until by the end of February, if not before, the place is cleared of the "spares" and the ground already well on its way again. By this system it is possible for the breeder's quarters to get at least three months' rest, the chicken nurseries probably eight, and the growing pens about four, every year. In fact, since at no time are there more than about 60—70 birds to the acre, it will be readily admitted that there is small danger of the land becoming stale. Beyond this, it is generally the case that the fancier nurses his land well and takes a varying hay crop from the whole every summer.

It must be admitted that, to the fancier generally, eggs as mere eggs do not mean very much; that is to say, that, as regards the sale of eating eggs, his takings are very small. Nevertheless, as potential chickens, they mean everything, and as as means to this end, since he simply must have early eggs in comparative plenty, nothing is too good for the breeding stock. There are, for instance, fanciers quite willing to allow their good breeders to sit for a month in early summer on dummy eggs in order to ease and hasten their moult. Otherwise, it is a common practise to herd the unmated hens together in light movable roosts, on some spacious farm field all the summer, letting them have a good time generally in these "holiday" quarters, during which period laying is actually discouraged. In short, since practically everything centres round a successful breeding season, all else is more or less subordinate to this end.

The particular type of fancier we are discussing—that is, the man who is out to make a living from his poultry farm—is bound to follow the fashion, which means that at the present time he must take up (as his mainstay, at any rate) one of the really popular varieties for his speciality Here we need not go into details, save to say that since these are to be found almost entirely among the heavier breeds at the moment, and that a crop of chickens maturing from about August to November is essential, his rearing season is almost invariably an early one, even April-hatched chickens being considered as on the late side.

To start, then, with the New Year. Since by Poultry Club rules no young stock hatched before January 1st may be regarded as such for the purposes of competition, and supposing, as mentioned before, that the total number aimed at is round about 600, these may be apportioned something as follows :—

January 150, February 200, March 250, with a few April broods to make up the inevitable gaps.

The fancier breeder is more or less wedded to the broody hen and small unit systems of rearing. In fact, there are some who maintain special flocks of cross-breds for no other purpose than to provide early sitters, the favourite amalgam being Partridge Wyandotte-Silkie, which cross results in a light, careful mother, with a strong tendency to sit after producing very few eggs.

Most, however, go in for natural and artificial methods, the latter consisting of movable outdoor foster-mothers—lamp - heated—in which for the most part are housed not more than 40 chickens at a time. The fancier, rightly or wrongly, has a **rooted objection** to large numbers housed together at any stage. Hence his farm will usually be found to be divided up into numerous comparatively small pens, into which the young stock are continually being sorted out and drafted as the season progresses.

All this, combined with the large size and consequent appetites of the young stock, the comparative laboriousness of the various processes, and the expensive foodstuffs purchased, makes the costing of the individual chick amount to a good deal more than in the case of his utility brother. To draw a bow more or less at a venture, one would find that the maintenance bill on such a farm (100 permanent, 600 floating) will come to little short of £400 annually, including a share for overhead expenses, of course. In calculating this one has to remember the flock is dwindling all the time from April onwards, as shall be shown later on.

Free range, comparatively speaking, small flocks, and quality feeding are thus the main principles of the rearing season, and on the whole this management, as has been said, in conjunction with considerable skill and, on the whole, scrupulous cleanliness, results in very few losses.

As to feeding, every individual probably adopts a slightly different formula, but in the main a combination of wet and dry is universal, dry in this case signifying grain.

Thus, during the earliest stages, meals are given every 2½ hours : From 6 to 16 weeks four feeds daily, and from four months onwards three. Oats bulk largely in one form or another in these feeds, pinhead oatmeal, groats, and Sussex ground oats being used freely at various stages. The first and last feeds are usually grain, the intermediate ones mash. Here is an average mash (though the milk will probably be discontinued sooner or later) :—Biscuit meal is steeped in boiling water, new or skimmed milk, and dried off to a crumbly consistency with Sussex ground oats (4 parts), fine sharps (1 part), maize germ meal (1 part), bone meal (½ part).

Since clover plays an important part in the make-up of a show bird, the fancier doubtless considers this in his feeding menu, almost from birth, and according to his variety may shun or favour particular foods. Not to any unusual extent, however, the main grain concerned being maize, the white variety of which is substituted (with its products) for the yellow by breeders of white or light coloured sorts.

It is hoped to conclude the subject with a consideration of the disposal of the young stock shortly, with a few words also on such subjects as mating and utility qualities.

POST-MORTEMS.

W. H. The post-mortem examination of the chicks showed that they were the subjects of rickets and the usual digestive breakdown that so frequently accompanies that disease. There is no one cause for rickets, but many, all working in conjunction with one another to produce the failure of the system to utilise the mineral content of the foods for body and bone building. The correction of rickets is less complex than the causes, and treatment is usually effective, although simple; it consists in adding two per cent. of cod liver oil to the daily mash, fish meal to the ration, and the provision of a full supply of green food, finely chopped cabbage for preference; exercise in the open air, or at least in unfiltered daylight is most essential, and should be allowed to the fullest possible extent.

H. A. R. The post-mortem examination of the chick showed that it was intensely jaundiced, and had an enormously distended gall bladder. Microscopical examination failed to discover any coccidia, so the jaundiced condition in this case may be put down to chill. "Carriers" of Coccidiosis cannot be detected by the blood test, but a microscopical examination of the excreta would show if they were harbouring the parasites or not.

Some Fruit-Growing Notes
to help Poultry-Keepers.

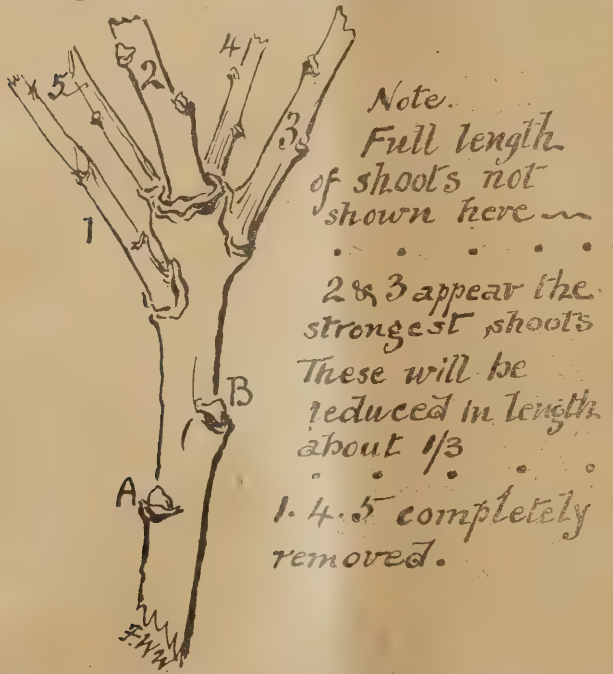
By F. W. WHEELER, F.R.H.S.

I am returning to the subject of Pruning as I have received a letter on that interesting work, and I feel that the answer may possibly interest others.

REPLY to **"Lyndhurst":** I am glad to have your queries, as it shows me points not touched on in my descriptions of pruning operations, or not sufficiently explained.

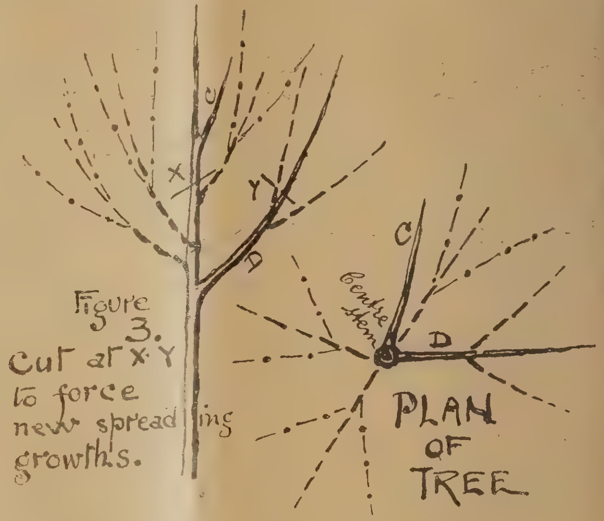
I know only too well from my early experiences how many varying conditions have to be dealt with and how impossible it is to illustrate them all with sketches.

I will deal briefly with your three points in order. Your "Figure 1," not reproduced here, which shows a young tree with two "leaders" that have both broken out at the end with five shoots. For this I consider it best to completely remove three of them, leaving the two strongest; these, fortunately, appear to be growing in the best direction for future extensions. My sketch below may assist you. It is made from the cutting you sent to show me a five-head shoot. The wood appears rather an **unripe** piece, so in such cases it might be wiser cut back to two side eyes (marked A.B.), and thus obtain your new extension for forming head to the tree from more mature wood.


5
2
4
3
1
B
A
Note.
Full length of shoots not shown here
2 & 3 appear the strongest shoots
These will be reduced in length about 1/3
1. 4. 5 completely removed.
F.W.W.

In your "Figure 2" you show a straight stem in centre of bush head. I always advise to remove any central one and to keep an open cup-shaped head, so that the sun can then shine on all branches and on all sides of them as it travels round from East to West.

In your "Figure 3" you appear to have one of those perverse cases to deal with of a lop-sided tree, and I sketch the head of tree as I understand it to exist, and I indicate with dotted lines how it appears to me you can best prune to start the open cup-shaped head eventually required. The lines --o—o-- show what to aim for in the following year.



EXTENSIONS:—Not knowing your soil I cannot say exactly what is best, but I think you are safe with having selected "Bramley Seedling," and should advise "Lane's Prince Albert" as a very suitable variety for future planting. This kind is a good bearer, and often spoken of as "the poor man's apple" because of its prolific bearing. "Newton Wonder" is certainly another good apple, and as a dual variety will give a nice dessert apple when kept until February. Either of these three help to polinize one another when planted near. I do not think you will find "Gladstone" suit your purpose so well as the first-named ones. Have you noted what variety of apples are doing well in your neighbourhood?

FILLERS:—If the apple trees (half-standards) are only 25 feet apart I cannot advise extra trees being put between them. Bramleys and Newton Wonders are very strong growing varieties, and "fillers" between will hardly be a paying proposition.

In your new planting I would suggest "Lanes'" and "Newtons" alternately; or, if you put down more "Bramleys," then plant, say, three or four "Lanes'" or "Newtons" to one "Bramley," and any Plums or Damsons, only planted on the outside rows. These latter, if used also with the idea of wind breaks, could be planted closer together than the apple trees, and I think this is much better than mixing the plums and apples in centre of plots. On pages four and five of my little book (which I note you have) you will see my remarks on various dessert and culinary plums.

The National Poultry Council and Income Tax.

A recent decision in the courts finally establishes the fact that poultry farming is husbandry, and as such is assessable under Schedule B, and so for the present the long struggle has come to an end.

Before we are out of the wood, however, it would be well to give special attention to the remark made by Mr. Justice Rowlatt :—

> "But I wish to guard myself," said His Lordship, in conclusion, "from the possibility of being supposed to lay down as an absolute or general rule that poultry-keeping is in all circumstances an agricultural operation or a branch of husbandry, for it is not difficult to imagine cases in which the occupation of the land for that purpose has no relation at all to the fruits produced upon the land. That would present a very different question for determination."

That is important, as our readers will duly note.

It is a pity that all those who are engaged in the industry are not able to realise the enormous amount of work which has been done on their behalf with regard to relief from Income Tax by the National Poultry Council, for we venture to think that if they did so they would be far more generous in their support of this body than they have been hitherto.

In this respect readers of "Eggs" and members of the S.P.B.A. have no need to reproach themselves.

To the Legal Defence Fund of the National Poultry Council members of the S.P.B.A. contributed over one-third of the total amount collected, and had all other societies and those engaged in the industry done equally as well the National Poultry Council at the present moment might have been in a far better position than it is.

We can only ask our readers to recognise the great work which the Council has done, and we must make special reference to the great assistance given it by its Hon. Solicitors, Messrs. A. E. Hamlin and Co., and the zeal of the Secretaries, Mr. Edward Brown and Mr. A. H. Brownson.

The National Poultry Council at the present moment is financially embarrassed, its activities curtailed, and its work limited, because it has never received from the poultry industry the financial support which it deserves, in view of the great work it has done for the industry since its inception.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

THE KEIGHLEY AND DISTRICT BRANCH.

OPEN EGG SHOW.

The Fourth Open Egg Show will be held in the Temperance Hall, Keighley, on Wednesday, April 7th, 1926.

Entries are invited for eight classes.

Hatching Eggs.—Class 1, Six White Hen Eggs; Class 2, Six Tinted Hen Eggs; Class 3, Six Brown Hen Eggs.

Commercial Eggs.—Class 4, Six White Hen Eggs; Class 5, Six Tinted Hen Eggs; Class 6, Six Brown Hen Eggs.

Class 7, Six Aylesbury Duck Eggs (Hatching).

Class 8, Six A.O.V. Duck Eggs (Hatching).

A Silver Challenge Trophy is offered by the Society for most points gained in the whole series in 1926. Mrs. A. Wilson will give a Silver Spoon for the most points gained in the Duck Egg Classes.

Judge: Mr. Frank Snowden, Cowling.

No entry fee. A prize of 2/6 will be given in each class where there are six or more entries.

After awards have been made, eggs to be sold and proceeds to go to the funds of the Society.

Packages of eggs should be addressed to the Hon. Secretary, Keighley and District Branch of the S.P.B.A., Temperance Hall, Keighley, and should arrive not later than 6.30 p.m. Name of breed from which the eggs are from must be stated at time of entry.

Judging will commence at 6.45 p.m.

After the sale of eggs Mr. Frank Snowden will open a discussion on "Pedigree marking of chicks."

Everyone interested is invited to attend.

I am asked by Mrs. Wilson, Secretary of the above Branch, to notify members and friends that final arrangements have been made for the visit to Mrs. Vowles, The Court House, Beningborough, Nr. York, on Tuesday, 6th April. A charabanc will leave Thornton at 9.30 a.m., and will pass through Denholme, Cross Roads, Keighley (Cooke Lane), Bingley, Saltaire, Hollings Hill, Otley, Boston Spa, etc. Mrs. Wilson is applying for permission to visit the Yorkshire Laying Test at Otley if anyone cares to have a look round. The fare is 8/- per person. Anyone wishing to join the party must notify Mrs. Wilson not later than March 31st.

DORCHESTER COUNTY TRIALS.

POULTRY INSTRUCTOR'S REPORT FOR FIFTH MONTH OF LAYING TRIALS, 4th February to 3rd March, 1926.

The weather has been much better for the fifth period—14 days fine with sun, 2 days fine with cold wind, 4 mild days without sun, the remaining eight rain.

The 299 birds are still in excellent health; no sickness during the month.

(Sgd.) A. TURNER.
County Poultry Instructor.

MONTHLY RIBBON WINNERS AND RESERVES—Fifth Period.

Figures are Eggs and Points respectively:—

Capt. Whitley, Corfe Mullen (L.S.), 26, 207; Capt. Turton, Fayremead Farm Products, Ltd., Ensbury (W.W.), 25, 186; C. A. Streathfield, Beaminster (W.L.), 28, 224; C. A. Streatfield, Beaminster (W.L.), 27, 216; H. R. Lovelace, Piddlehinton (L.S.), 25, 199; O. J. Collis, Buckland Newton (W.W.), 23, 176; Miss Hall, Long Melford, Suffolk (W.L.), 28, 224; L. M. Morgan, Bere Regis (W.L.), 24, 192.

LEADING PENS IN EACH SECTION TO END OF FIFTH PERIOD.

Section 1.—N. V. Fowler, Bridport (W.W.), 3977 pts.; Capt. Turton, Fayremead Farm Products, Ltd., (R.I.R.), 3554; Capt. Turton (W.W.), 3526; Mrs. Clarke, Steepleton (W.W.), 3519.

Section 2.—B. P. Leschallas, Charminster (W.L.), 3813 pts.; Capt. Turton, Fayremead Farm Products, Ltd., Ensbury (W.L.), 3751; Mrs. Trehane, Hampreston (W.L.), 3581; Capt. Cree, Owermoigne (W.L.). 2921.

Section 3.—H. Barnes, Hedge End, Blandford (W.W.), 3567; O. J. Collis, Buckland Newton (W.W.), 3562; H. J. Northover, Buckland Ripers (L.S.), 3481; Mrs. Neate, Closeworth (B. Rk.). 3273.

Section 4.—Miss Oddy, Milborne St. Andrew (W.L.), 2993 pts.; W. M. Millard, Twyford, Shaftesbury (W.L.), 2726; R. Runyard West Lulworth (W.L.), 2293; V. & H. Lawes, Cerne Abbas (Bl. L.) 2255.

Correspondence—Continued

THE MARKETING CONFERENCE.

Dear Sir,—I should like to thank you for your most excellent leader on the Marketing Conference in the issue of 10th March, and to say I am sure you are expressing the opinion of all who have the future of our industry at heart when you regret the apathy and indifference which results in such a work as the Report on Egg Marketing being neglected. It is typical of the selfishness of many poultry farmers. As a community they are apparently averse to doing anything for the "common good"; their cry is always, "What good is it to ME?" The question of efficient marketing, if it is not actively taken up by all, will simply result in the ruin of producers, and richly many of them will have deserved it.

Your article covers the ground well, and I will not go into all the questions which should be in the course of formation of future policy now, but obviously it is no use tinkering. We must follow Ulster. If we don't, the English egg will become the Election Egg, and a byword for cheap humour on the Music Halls, coupled with Sausages and Mothers-in-law.

There are producers in this district who regularly hold up supplies on a rising market (in hot weather as often as not) for six weeks, and nothing short of Ulster's way will stop them.

Yours faithfully,

PHILIP CLAPHAM.

ANSWERS TO QUERIES—Continued.

C. W. W. (Staffs) wishes to know which is the best of three crosses, and the second best. His object is to produce a good egg producer, and at the same time eliminate broodiness. Last year he crossed White Leghorn males with R.I. Red females, and broodiness was very much in evidence. I am afraid he is very much mistaken if he thinks he can altogether eliminate broodiness by crossing. Of the three crosses he names I should prefer the Black Leghorn male to R.I. Red females as the best and most likely to give the least broodiness. The second, a White Leghorn male to R.I. Red females. Assuming his White Leghorns were not pure—i.e., that some generations back there had been an outcross with the Wyandotte or the White Rock, as has been the case—there would be a tendency to revert to broodiness with this cross. The best of the three, in my opinion, is the Black Leghorn, as I have said before.

CHESHIRE COUNTY COUNCIL EGG-LAYING COMPETITION (1925-26)—(Single Bird Test).

REPORT ON RESULTS FOR FIFTH PERIOD (February 4th, 1926, to March 3rd).

The flock average for the month is 13.55 eggs per bird. The average for the light breeds is 13.9; and for the heavy breeds 13.3 per bird. Three birds in the light breed section and three birds in the heavy breed section did not lay.

Three birds were broody, and moulting was observed in one bird.

SUMMARY OF LEADING PENS.

Figures are Eggs and Points respectively:—

Light Breeds (All W.L.).—A. Dixon, 15, 98; A. L. Tobler, 17, 95; Mrs. N Viney, 20, 94; Campbell Sheen, 21, 104; Mrs. N. Viney, 19, 96; Mrs. E. Johnson, 16, 92.

Heavy Breeds.—Mrs. N. Viney (W.W.), 22, 103; E. Paterson (B. Orp.), 11, 93; Mrs. Mortimer (W.W.), 22, 95; W. Travis (W.W.), 17, 84; J. Riley (W.W.), 11, 84; J. Hignett (W.W.), 12, 80.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

McFeely, H P. Craig-, at Holly Bush P.F., Setley, near Brockenhurst, Hants.
Green, G. T., 64, Brownlow Road, Bowes Park, N.11.
Blackhall, J. M., Muir Cottage, Kinellar, Aberdeenshire.
Wardrop, Capt. H. M., Stubton Hall Farms, Ltd., Claythorpe, near Lincoln.
Archer, W. C., 30, Crawford Street, Camberwell, S.E.5.
Jones, Mrs. E. L. Egerton, Hamme Farm, Withyham, Sussex.
Fanning, R. Burton-, Hill House, Hempnall, Norfolk.
Crosland, J., Brook Farm, Gorsley, Newent, Glos.
Flint, R. P., Normans Wood, Newent, Glos.
Nagle, Mrs O., Byblox, Doneraile, Co. Cork, Ireland.
Lloyd, Mrs. H S., Old Thatch, Aspley Guise, Beds.
Whiteley, W., 5, Brook Lane, Golcar, Huddersfield.
Mount, R. S., Howfield Manor, Chartham, Canterbury.
Campbell, T., 103, Airbles Road, Motherwell, Lanarkshire.
Read, Miss D., New House, Downton, Wilts.
Woolley, Mrs. E. M. Sunnybank, Christchurch, Newport, Mon.
Thomas, D. Lloyd, The Bungalow, Tresaith, Newcastle Emlyn.
Patten, A. G. B., Mayfield, Binley, Andover, Hants.
Hall, William, Glenfield, Linby, Notts.
Halliday, Percival S., Gatehead Farm, Greetland, near Halifax.
Smith, Archie, c/o Smith Co., Ballymena, Ireland.
Mostyn, George A., Bastide de Batele, Mouans-Sartoux (A.M.), France.
Gandy, Leonard C., Almners Farm, Lyne, Chertsey.
Daley, J. A., Waterworks Road, Farlington, Cosham, Hants.
Grant, Mrs. E. F., Glendruidh, near Inverness.
Ramsden, John B., Well Street, Dobcross, near Oldham.
K'Eogh, Mrs. E. E., Wood Cottage, Kilbridge, Tullow, Co. Carlow.
Wilson, Geoffrey, Three Ways, Charing, Kent.
Scott, W. Murray, Wakenills, Haslemere, Surrey.
Wilby, J., Hill Top Farm, High Street, Heckmondwike.
Duncan, James, Village, Methlick, Aberdeen.
Woodruff, Albert, 56, Newton Street, Hyde, near Manchester.
Harris, S. A., Oakland's, Marlow Common, Marlow.
Fevre, E. Le, Holverston, Norwich.
Harrison, W., Ex-Service Men's Club, Tideswell, near Buxton.
Cameron, Hugh, Ash House, Tideswell, Buxton.
Turner, Thomas, 22, Great North Road, Woodlands, near Doncaster, Yorks.
Wilkinson, Albert, Moor Cottage, Lindal, near Ulverston, Lancs.
Watkinson, J., Daleside Bungalow, High Street, Skelmersdale, near Ormskirk, Lancs.
Evans, F. H., Burley Hill, Kempsey, Worcester.
Campbell, J. G., Arthur Lane Farm, Ainsworth, Bolton.
Carter, Mann, 6, Rochester Place, Savile Road, Elland.

SEVENTH MIDLAND LAYING TEST.

Leading Pens in each Section (four birds per pen). Third Month (84 days).

White Leghorn Section.—W. Beattie, Northampton, 185 eggs; A. Pickard, Nuneaton, 182; J. Hampson, Bolton, 179.

White Wyandotte Section.—F. E. Townson, 201 eggs; Rev. Blight, Chard, 197; Mrs. Seed, Longridge, 196.

Rhode Island Reds Section.—Miss Gibson, Wolverhampton, 177 eggs; T. L. Lumb, Henden Bridge, 169; G. T. Warr, Alvechurch, 166.

Light Sussex.—F. R. Welch, Bewdley, 130 eggs; Wilson Beattie, Northampton, 122; Capt. Munro Spencer, Hants, 100.

A.O.V. Heavy Breeds.—T. Brookshank, 112 eggs; J. Martin, Bolton, 101; W. Hamnett, Blackpool, 90.

Single Birds. Light Breed.—H. Armitage, Golcar, 36 eggs; Mrs. Sershall, Winson Green, 36; Mrs. Fort, Williton, 33.

Single Bird Section. Heavy Breeds.—F. Nicholls, Alvechurch, 46 eggs; C. W. Cracknell, Kings Norton, 45; B. Allbut, Bromsgrove, 44.

GLAMORGAN AGRICULTURAL COMMITTEE.

COUNTY EGG-LAYING TRIALS, 1925-26.

Report for Fifth Period.

Heavy Breeds.—J. Joshua, Tondue (R.I.R.), 1717 pts.; A. L. Davies, Morriston (W.W.), 1518; R. J. Evans, Abertridwr (R.I.R.), 1415; Mrs. Jenner, Wenvoe (W.W.), 1395.

Light Breeds.—Howell and Phillips, Barry (W.L.), 2079 pts.; D. J. Thomas, Pontardawe (B.L.), 1700; A. J. Jenkins, Barry (W.L.), 1522; D. Hopkins, Port Talbot (W.L.), 1318.

Single Birds. Heavy Breeds.—G. A. Monk, Ynysybwl (W.W.), 571; G. Haylings, Ynysybwl (W.W.), 555.

Single Birds. Light Breeds.—T. E. Lewis, Pontardawe (W.L.), 247 pts.; G. A. Monk, Ynysybwl (W.L.), 240.

Dry mash birds laid 1166 eggs during this period. Wet mash birds laid 712 eggs during this period.

Bird No. 2 of Pen 8 (W.L.) died on February 22nd from Asthenia. Bird No. 3 of Pen 43 (W.W.), died on March 3rd from Leukaemia.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 19th MARCH, 1926.

GRAIN AND FEEDING STUFFS.—Moderate offerings of British wheat meet a rather better demand and prices have advanced on the week at most markets, the average quotation being 11s. 8d. per cwt. as against 11s. 5d. last week. Imported also meets an improved trade and generally realises more money, No. 1 Manitoba averaging 13s. 11d. per cwt., an increase of 6d. per cwt. on the week. Home-grown feeding barley is in ample supply, and although in little request recent quotations are about maintained, while foreign is somewhat dearer at Bristol and Hull. Best samples of English oats are in some demand for seed purposes, but other sorts attract little attention, average prices for the markets reported being unchanged on the week. Imported oats are in moderate request and slightly dearer at London, while elsewhere late rates are about maintained. Maize meets an improved demand and is dearer at all markets.

Millers' offals are in better request and coarse middlings sell at higher prices, while bran makes late rates, except at London where an advance of 7s. 6d. per ton is recorded. Meals are generally quiet at about recent figures, but quotations for maize products have advanced on the week. Linseed cake is cheaper at all markets except Hull, while English-made cotton seed cake mostly makes late rates, but Egyptian is reduced 5s. per ton at some centres.

MILLERS' OFFALS.—Bran (British): Bristol, £6 15s; Hull, £6 17s; Liverpool, £7; London, £6 5s. Broad Bran: Hull, £8 7s; London, £7 15s. Middlings—Fine (Imported): London, £7 12s; Coarse (British): Bristol, £7 7s; Hull, £7; Liverpool, £7 5s; London, £6 7s. Pollards (Imported): Bristol, £6; Hull, £5 10s; Liverpool, £5 7s; London, £5 17s. Rice Bran: Bristol, £6 12s; Liverpool, £6 10s; London, £6. MEAL.—Barley Meal: Bristol, £9; Hull, £9; London, £9 5s. Maize Meal: Bristol, £9 5s; Hull, £8 2s; Liverpool, £8 10s; London, £8 10s. Maize Meal (S. African): Bristol, £8 5s; Hull, £7 10s; Liverpool, £7 12s; London, £7. Maize Germ Meal: Hull, £8; London, £7 10s. Maize Gluten Feed: Bristol, £10 5s; London, £9 10s. Locust Bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9 12s. Bean Meal: Bristol, £13; Hull, £11 7s; London, £12 5s. Fish Meal: Bristol, £20 10s; Hull, £19 10s; Liverpool, £18 10s; London, £18.

EGGS AND DEAD POULTRY.

Heavy arrivals of English and best imported eggs clear slowly, and quotations have again receded. Secondary grades have been in short supply. Only the best classes of dead poultry meet with any inquiry, with an occasional hardening in price.

Week-end Prices—Eggs (per 120): British, 12s 9d, 11s 9d; Irish, 12s 9d, 12s 6d; Danish (18 lb.), 16s 9d; Danish (15½ lb.), 13s 3d; Dutch, brown, 14s. 6d, 14s 0d; Dutch, mixed, 13s 6d, 13s 0d; French (Brittany), 11s. 6d, 11s 0d; French (Normandy, brown), 13s 6d; French (Normandy, mixed), 13s 0d, 12s 6d; Belgian, 12s 9d, 12s 6d; Italian, 13s 0d, 12s 0d; Polish, 10s 6d, 10s 0d.

Dead Poultry (per lb.): Fowls—Surrey, 1s 11d, 1s 7d; Irish, 1s 4d, 1s 2d; Others, 1s 8d, 1s 3d. Ducks, 2s 0d, 1s 7d. Geese, 1s 3d, 1s 1d.

EGGS.

Per Doz.—Ashford: First, 1s 3½d; Second, 1s 2d. Birmingham: First, 1s 3d; Second, 1s 2½d. Bridgwater: First, 1s 4d; Second, 1s 1½d Chelmsford: First, 1s 4¼d; Second, 1s 2½d. Colchester: First, 1s 4¾d; Second, 1s 1¼d. Doncaster: First, 1s 7d; Second, 1s 5d. Dorchester: First, 1s 2¼d; Second, 1s 1½d. Exeter: First, 1s 1d. Hereford: First, 1s 2d. King's Lynn: First, 1s 3d; Second, 1s 1d. Llandilo: First, 1s 2d. Second, 1s 1d. Mold: First, 1s 0d; Second, 10d. Newport (Mon.): First, 1s 3d; Second, 1s 2d. Norwich: First, 1s 3d; Second, 1s 0d. Oswestry: First, 1s 1d. Penzance: First, 11d; Second, 10d. Saffron Walden: First, 1s 3½d; Second, 1s 1¾d. St. Ives (Hunts): First. 1s 3d; Second, 1s 2d. Salisbury: First, 1s 1½d; Second, 1s 1d Skipton: First, 1s 3d. Swindon: First, 1s 2½d Second, 1s 1½d. Truro: First, 11d. Welshpool: First, 1s 2d; Second, 1s 0d. *Carlisle: First, 1s 2d; Second, 1s 0d. *Derby: First, 1s 3d. *Ipswich: First, 1s 4d; Second, 1s 2d. *Lincoln: First, 1s 3d. *Shrewsbury: First, 1s 2d; Second, 1s 0d. *York: First, 1s 4d; Second, 1s 3d.

FOWLS.

Per lb.—Birmingham: First, 1s 6d: Second, 10d. Doncaster: First, †6s 0d: Second, †5s 0d. Exeter: First, 1s 4d; Second, 1s 3d. Hereford: First, 1s 6d. Llandilo: First, 1s 8d; Second, 1s 4d. Newport (Mon.): First, 1s 8d. Second, 1s 2d. Truro: First, 1s 5d. Welshpool: First, 1s 7d: Second, 1s 5d. *Derby: First, †6s 0d: Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d Second, 1s 3d. *York: First, †6s 0d; Second, †5s 6d.

(Continued at Foot of Next Column).

DUCKS.

Per lb.—Exeter: First, 1s 4d; Second, 1s 2d. *Ipswich: First, 1s 4d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, March 24th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscription to "EGGS," 12s. 8d. per annum; 6s. 4d. for six months, 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick, Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

Classified Advertisements.

(PREPAID RATES.)

1d. per word—minimum charge, 1s. 0d.; 13 insertions at price of 12. Bold headlines inserted at an extra charge per insertion according to size as below:—

DAY-OLD CHICKS per line, extra 9d.
DAY-OLD CHICKS, " " 1s.
DAY-OLD CHICKS " " 1/6

The number of letters, punctuations and spaces between words should be totalled, when the following table will be of assistance:—

9d. size allows for Thirty-one to one line.
1/- size allows for Twenty-seven to one line.
1/6 size allows for Twenty-one to one line.

When the remittance does not cover the size selected, a smaller corresponding size type will be used.

Insertion constitutes acknowledgment of remittance in the case of pre-paid advertisements. For a series of 13 insertions or more, a receipt is forwarded.

N.B.—Advertisements, unless accompanied by correct amount, will not be inserted.

Advertisements must be distinctly marked with the Heading under which they are to appear.

Advertisements must be written on a separate sheet of paper, and one side of the paper only.

Name and Address to be counted. In the case of a Box Number being used, the words, "Box," "Eggs," 94, Farncombe Street, London, S.E.16, to be counted as eight words, i.e., making a total extra charge of 1s. 8d. (1s. for Box; 8d. for address) per insertion.

Advertisements must reach this office
FIRST POST FRIDAYS
for insertion in the following Wednesday's issue. Those received after this time will be inserted in the next issue.

PLEASE WRITE CLEARLY, and TO AVOID MISPRINTING OF STRAINS, NAMES AND ADDRESSES. THESE SHOULD BE WRITTEN IN PRINTED CHARACTERS.

Displayed Advertisements.

Ordinary Page, £8 15s. 6d.; Half Page, £4 7s. 9d.; Quarter Page, £2 4s. 0d.; One Column, £2 18s. 6d., Half Column, £1 9s. 3d. Quarter Column, 14s. 9d. One inch, 6s. 6d. Special Inside Pages, 25 per cent. on above rates. Cover and other Special Positions by arrangement. Discounts for Series. Full Scale of Advertising Rates on application.

Advertisements, addressed to Mr. S. H. BURLES. "EGGS," 94, FARNCOMBE STREET, LONDON, S.E.16, MUST REACH US BY FIRST POST FRIDAY MORNINGS, for insertion in following issue. Those received later will be inserted in the next issue.

A DEPOSIT SYSTEM has been adopted for advertisements, and Advertisers are asked to make full use of same. When remitting direct to the Editor on deposit, the full amount of purchase money should be sent, and six penny stamps extra to cover cost of acknowledgment of same. Cheques should be made payable to the Editor and sent direct to The Beeches, Rudgwick, Sussex.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. — R.I. Reds (first pens headed). Cockerels (direct Boucher), Runner and Khaki-Campbells. Eggs, Chicks, and Stock Birds. List free. Satisfaction insisted on.

Eggs for Hatching: R.I.R.; best strains; limited number; 6s. 6d., 15 eggs.—Nanoose Poultry Farm, Wool, Dorset.

Sex-linked R.I.R. x Light Sussex. Sittings, 6s. for 15, no replacements. — Rosedale, Wadhurst, Sussex.

Aylesbury Duck Eggs, 7s. per dozen; carriage paid. — Churchberi Egg Farm, Gretton, Kettering.

Hobson's First Prize Utility Minorcas; eggs, 10s. 6d. 15 — Hobson, Wrentnall House, Pulverbatch, Shrewsbury.

Barnevelder Eggs (Middleman and Schimmel), Barred Rocks (Jackson), Buff Rocks (Taylor and Slater); 5s. 6d. dozen, carriage paid; boxes returned.—Beattie, Braemore, Mauchline, Ayrshire.

Light Sussex Eggs; 100, 30s.; 50, 16s. 6d.; delivered. Chicks, 50, 40s.—F. Paynter, The Lawn, Lampton Road, Hounslow.

Anconas, Black, Brown and White Leghorns, Khaki-Campbell Ducks; all best strains; 4s. 6d dozen; carriage paid. — Dixon, Kempe's Corner, Wye, Kent.

Hatching Eggs; 7s. 6d., 15; from carefully selected trap-nested Black Leghorns, Red Sussex.—Mrs. Coldwell, Spring Grove, Milverton, Somerset.

Speckled Sussex. Sittings, 6s. 6d. doz.; carriage paid; from good layers (large eggs). — Secretan, Swaynes, Rudgwick, Sussex.

Schimmell's Barnevelders; specially mated; sound stock; no fancy prices; 6s. 6d. dozen.—Waterworth, M.S.P.B.A., Duffield, Selby, Yorks.

Eggs, 7s. 6d. doz.; 27s. 6d., 50; carriage paid; from trap-nested Utility Light Sussex, the only breed kept, on unlimited free range on Yorkshire Wolds.—Jack Spilman, Gardham, Beverley, Yorkshire.

WHITE LEGHORN EGGS FOR HATCHING.

None under 2ozs. 85 per cent. fertility guaranteed; Hanson, Bennet and Pike strains; mated to cocks and cockerels direct from the Misses Ransford, Pens VI. to X. All breeding stock on virgin soil. Inspection invited; 6s. a sitting, 35s. per 100; carriage paid.—Apply, Instow Poultry Farm, Langton Matravers, Dorset.

WHITE WYANDOTTES.

The Sunnycroft strain have been bred on scientific lines, and trap-nested for fourteen generations. Eggs, 10s. and 7s. 6d. dozen.—Fred W. Wait, Sunnycroft, Burton Joyce, Notts.

GOLD MEDAL STRAIN.

White Leghorns, winners of National Laying Test Section 2, 1925. Booking Sittings of Eggs; 10s. dozen.—Bingley, Balsham Manor Farm, Cambridge.

R.I.R's AND K.-C. DUCKS,

Meeking-Crowley and Wyndham Mallet direct.
SITTINGS (12 EGGS), 5s. to 10s. 6d.
20 per cent. discount after certain dates. Mating List post free.—Streatfeild, Chanters House, Pilton, Shepton Mallet, Somerset.

EGGS.

FOR SALE.

Eggs for hatching; Houdan; Util Strain; 6s. 6d. per 15; no replacements MacKnight, Station House, Wall Gra Cheddleton.

Rhode Island Red Sittings from splen layers; pure strain; 5s. 6d. dozen.—W kins, West Bergholt, Essex.

Reliable Hatchable Eggs. R.I.R.'s, Bosto Smith; W. Wyandotte, Rodwell's; Bla and White Leghorns, F. Snowden's; K. Ducks, O. Brown; Black Leghorns, 3 Wilts Test; White Leghorns, 1st Sing Bird, end fourth month, 1926; Gold Med Nine Certificates, and Ribbons, 1925 Egg 5s., 15; 27s. 6d., 100. Chicks, 78s., 100. Edward Oatley, Manor Farm, West Aston, Trowbridge.

White Leghorn. Large Egg Strain, fro second season hens, Frank Snowden, mat to Vigorous Cockerels; Dowden's Bloo Tested Stock; 5s., doz.; 35s., 100.—Milste Birling Cottage, Powder Mill Lane, Sout borough.

White Leghorn Sittings from carefull built strain of great layers; founded i dividually-bred pedigree birds, fro Misses Ransford and Mrs. Cockshott. E ceptional offer: 5s. 6d.—Brown, Newbiggi Malton.

Sittings. R.I.R., Light Sussex, Barne velders; Gold Medal strain. White Wya dottes, Snowden strain; Black and Whi Leghorns, William Cook strain. all 7s. 6d. per 15 eggs. No replacements. A eggs over 2ozs.—Capt. McCarthy, Springfiel Lodge, Camberley, Surrey.

EGGS. R.I.R., W. LEGHORN, L. SUSSE Pedigree Trap-Nested Stock. All her specially selected and mated to coc erels, from high record dams; 4s 6d. pe doz.; 35s per 100; carriage paid.—J. La Stark, "Glenearn," Billericay, Essex

FERTILE EGGS.

White Leghorn Eggs, over 2oz., 500 pe week; April, 40s. per 100; May, 30s. pe 100; no replacements; carriage paid. - Jackson, S.P.B.A., New Park Road, Cra leigh.

SPECIAL WHITE LEGHORN SITTINGS,

From Bostock Smith Pen 1 direct. Eve bird in flock bred from hens laying 290 t 306 eggs in pullet year; mated to grandso of "Heaseland's Queen" (101 eggs in 10 consecutive days). Eggs. 10s. 6d. dozen; Chicks, 21s dozen. Two hatches each wee during April.

ALSO

Sittings from daughters of above, mate to a grand Bostock Smith Pen 1 Cockerel 7s. 6d. dozen; Chickens, 18s.

R.I.R's,

Daughters of birds laying 280 eggs an over in pullet year, mated grandson o "Heaseland's Brownie" (308 eggs). Eggs 8s. 6d. dozen; Chickens, 18s.

LIGHT SUSSEX,

Daughters of birds laying 240 eggs an over in pullet year, mated to gran cockerel. Eggs, 8s. 6d.; Chickens, 18s.

EVERY BIRD

in each flock here mentioned is bred direct

FROM BOSTOCK SMITH PEN I. STOCK.

—Miss Graham. Member S.P.B.A., Branstone Lodge, Burton-on-Trent.

WHITE LEGHORN EGGS

For hatching. From hens with good winter records; mated to cockerel, from F. Snowden's "Daily Mail" winners; 5s. per 14; 30s. per 100; no replacements. — P. Clark, Rowmill Poultry Farm, East Lane, Scunthorpe, Lincs.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, MARCH 31st, 1926.

Editorial.

THE INTENSIVE SYSTEM.

Interest in the Intensive System is so great, and requests for further information so numerous that we feel compelled to return to the subject again.

May we, however, point out that we are asserting nothing and stating nothing at present ; merely investigating, in the firm belief that this system can be so perfected as to at least give results equal to those of the semi-intensive system, and it may be, obviate the high chicken mortality which is experienced on many semi-intensive plants to-day, and also do something to check outbreaks of disease.

When we referred to the semi-intensive system, when writing these articles, it was not with the idea of drawing invidious comparisons between it and the intensive system. We only asserted that the semi-intensive system had not proved an unqualified success, and we are perfectly certain that there are a very large number of our readers who have had experience of this system, who would confirm what we have said.

We are perhaps in a far better position to know what are the average losses (chicken mortality) on the semi-intensive farms than many of those who are actually running the farms themselves, and we say, without much fear of contradiction, that the average chick mortality on these farms exceeds 20 per cent., and that we do not believe on any farm in this country for a period of years has the average been below this. However, this is not important at present, and is, moreover, not to the point.

In answer to many readers we propose to answer some of the questions here which have been put to us :—

(1) WHAT IS THE BEST BREED TO KEEP INTENSIVELY?

Either Black or White Leghorns, although a first-cross may be useful, when made between a light and heavy breed, a cross between two heavy breeds is not recommended. Wyandottes may be kept very successfully intensively, and R.I. Reds. We have known two instances where Light Sussex have also been successfully kept on this system, but would not recommend them for this purpose.

(2) SHOULD THEY BE FED IN THE SAME WAY AS THOSE KEPT SEMI-INTENSIVELY?

The answer to this is yes, although, as previously indicated, it will probably be necessary to supplement the rations with a salt mixture.

(3) PRESUMABLY SUCH BIRDS MUST HAVE FRESH GREEN FOOD?

(a) Should this be always before them?
(b) What is the best green food for this purpose?
(c) Is the heart of a cabbage, which is inclined to be white, so good as the greener leaves?
(d) Is Cottagers Kale as good a green food as any during the winter months, as I find cabbages are very inclined to rot in damp weather?

In answer to this, certainly such birds must have green food; this, and proper ventilation of the house, is acknowledged to be greatest difficulty in keeping birds intensively. Green food need not always be before them. If provision can be made for the birds to have half an ounce of green food per head per day it would be sufficient. All kinds of cabbage are suitable, lawn mowings in spring and summer, rape, mustard ; in fact all green food is excellent during the winter, curly kale or thousand-headed kale. When there is an absolute shortage of green food ten per cent. alfalfa meal should be included in the mash. This should be supplemented, after Christmas, with roots, such as mangels and swedes, and one must not forget sprouted oats.

(4) HOW OFTEN IS IT ADVISABLE TO CHANGE THE LITTER WHEN KEEPING BIRDS INTENSIVELY, SAY, WHEAT STRAW, WHICH I PRESUME IS AS GOOD AS ANY OTHER KIND OF LITTER?

Our correspondent says he knows to a certain extent it depends upon the atmosphere and the quantity of litter used, but, allowing for the average weather conditions and a fair quantity of litter, approximately how many times a year would we advise it should be changed?

It should be obvious that this is not a subject on which we can give advice. It is a matter entirely for the observation of the person who is running his birds intensively. He is in a better position to see the condition of the litter, and to know when it is necessary to change it. We should be misleading many of our readers if we were to state that litter should be changed every six weeks or so. The litter must be dry, and it must be sufficient.

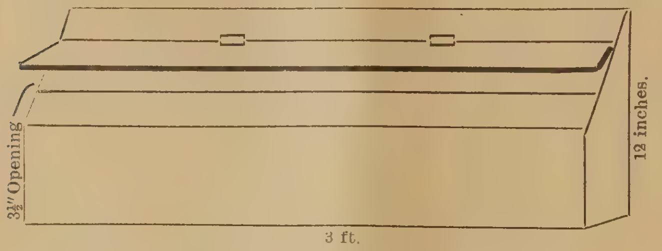
(5) WHAT DO YOU CONSIDER ONE OF THE BEST TYPES OF HOUSES FOR THIS PURPOSE?

We consider the span-roof type of house the best for the purpose, such as has been described in

"Eggs" during the last few weeks, as used on the S.P.B.A. Experimental Farm.

Attention is here drawn to the fact that the floor lights running at the back of the house are on sliding shutters, so that in the warmer weather more air may be admitted at the floor level.

The type of dry mash hopper best suited for the purpose we illustrate here :—



Our correspondent then goes on to say :—

> "I notice in 'Eggs,' in your article on 'Modern Poultry Feeding' that you advise feeding grain in troughs during the winter months to avert the neck moult and to increase the output :—
>
> (a) Does this remark apply to birds kept intensively? Also, does it apply to hens as well as to pullets?"

This does apply to birds kept intensively. Obviously, they will spend as many hours on the perch as those on the semi-intensive system.

No, the same remark would not apply to hens, except under exceptional conditions, as a hen does not produce at the same rate as a pullet, and generally there is no necessity to draw upon its bodily reserves.

Our correspondent also states in the same article he notices that we say :—

> "An increase in production can usually be overcome by an increase in the grain feed. Why grain and not mash?"

Because a pullet has usually drawn too heavily on bodily reserves of fat, and this would be supplied more readily through the grain than through the mash.

His further question :—

> "What are the special 'snags' to guard against, if any, in intensive poultry-keeping?"

The special "snags" are :—(1) The dangers of an outbreak of egg-eating or feather-plucking. These have already been dealt with. (2) Dirty litter. (3) Badly-ventilated houses. (4) Overcrowding. (5) Badly-lighted houses. (6) An insufficient supply of green food or insufficient litter. (7) Birds becoming overheated during a heat wave such as we experienced last year.

These are the special "snags" which it will be necessary to avoid.

Commercial Poultry Farming.

By T. W. TOOVEY.

VI.

The events of last year induced me to greatly alter my views on feeding hens. I am strongly inclined to think that feeding correctly is an important factor for the prevention of disease. The greatly increased production that has come about in the last few years must prove very exhausting, and causes the hen to be depleted of minerals and other elements which are necessary for maintaining the natural resistance to disease. Evidence to support this theory can be found, as our experience showed that the early hatched pullets proved very resistant to infection before they began to lay. Afterwards they were not so resistant, but the older layers suffered most. High feeding seemed essential; we now use no food with high fibrous contents, such as bran, alfalfa or clover meal, or cooked vegetables. The wet mash consists of biscuit meal, middlings, maize meal, ground oats and rice meal. To these are added fish meal, meat meal and steamed bone meal to the extent of 10 or 12 per cent. of the whole. Biscuit meal is very palatable, and has the effect of enabling the mash to be mixed to the right consistency which fowls like, and encourages them to eat more mash.

It seems doubtful to me that it is possible to restore to the hen, by food alone, all the factors necessary to keep her in a healthy natural condition. We have continued to feed the medicated meals introduced by Mr. Brain, and have added to and developed the system. We give, every day, homeopathic doses of tonic powders, both vegetable and mineral, principally the latter, but even the much deprecated spice is not absent from the mixture. The amount of these medicaments is controlled by measures, and the number of grains each bird gets is known—the average consumption. Of course, layers will get more than non-layers, as they eat more mash. The present daily dose is from six to seven grains per bird. This would appear to be the minimum necessary to keep disease in check, for we still get, almost weekly, mild cases of bird-pox and roup, but the disease appears in a very devitalised form, and is easily cured. All the evidence so far goes to show that by the daily use of medicated food, and the occasional use of a powerful roup cure, such as "Visol," the disease that caused us such heavy losses last year can be kept suppressed or existent in a form that practically means little or no loss. I have myself derived much benefit from taking a small daily dose of the well-known Kruschen salts. It is the small daily dose that seems best, rather than larger doses at longer intervals.

The hen fortunately seems able to take doses of drugs, if necessary, that would in the same proportion be fatal to mammals. In dealing with disease, with the exception of Mr. Brain, the experts seem to me to err in not giving the remedies in strong enough solutions.

We use cracked maize largely for laying stock all the year round. When the older birds are resting, as they will do in the late autumn and winter months, the maize should be reduced, as they then may get fatter than is desirable. Maize and oats are the staple grains we use, with a little wheat on Sunday when no mash is fed.

Each section is provided with its own hospital and convalescent home. The former is a building lined with cages for birds that require daily treatment; the latter is a poultry house with an outside run on grass, in which cured birds can remain for a time before they are returned to the general flocks. They are all nearly empty now.

If at any time there is cause to be suspicious of the state of health of any particular flock, all the birds in that flock are run through a catching coop; each bird examined, and probably dipped as to its head, and forced to drink a little of the cure. Care, however, must be taken in the case of the breeding flocks, not to overdo it, otherwise the strength of the germs in the eggs may be adversely affected. As it seems probable that some of us will for the future be compelled to use medicaments in the drinking water from time to time, I have replaced the whole of the iron water vessels with earthenware, these for other reasons also are more sanitary.

As the Editor says, we have much to learn of the science of nutrition, probably we shall never know all there is to know of the accessory food factors. This is one of the points that makes me afraid for the intensive system. I notice my hens are for ever scratching and seeking for something in the earth. The surface of the soil is always altering by the action of the seasons—by earthworms, and we also, perhaps unconsciously by carting ashes and clinkers, by basic slag and gravel, are constantly supplying mineral matter.

If, through heavy snow, we are obliged to keep our birds in for a few days, they lose their appetites, eggs decrease, and yolks turn pale.

In the concluding article I submit two estimates: (1) The cost of running a laying hen per annum. (2) An estimate for equipping with plant a 2,000 bird farm on the lines described, with a rough plan of the same.

As regards the former, I think it is fairly close. I have allowed for the sale of the by-products in the shape of cockerels and old hens, hence the cost of replacements is placed at a low figure.

My accounts have always been complicated, up to this year, by the presence of ducks and pigs. Now, as nothing but hens are kept, I shall be able, if this year proves a normal year, to give next year the exact costs of running a hen and analyse those costs into their component parts. Part of the second must be estimated, I am supposing that nothing but the bare land is available. If readers wish any points or features of these articles further developed, and by the courtesy of the Editor, these enquiries are put through "Eggs," I will endeavour to deal with them, but I cannot possibly write long answers to private correspondents.

BERKSHIRE EGG-LAYING COMPETITION.

Report for the Third Period, December 10, 1925—January 6, 1926.

Egg production has gradually increased, though not so rapidly as was expected, in spite of snow and heavy frosts during the middle of the period, and much rain at other times. In the General Farmers' Section there are one or two pens which have not yet contributed an egg, whilst for the corresponding period of last year all pens contained one or more layers.

The total number of eggs collected during the period was 1612, of which 546 were special grade, 478 first, 511 second grade eggs, and 77 non-scoring eggs, the average per bird being 8.4. This is not quite so good an average as the corresponding one in last year's trial

The average for Light Breeds is 7.1. The average for Heavy Breeds is 8.91.

The highest number of eggs collected on any one day was 80 (January 6th, 1926), and the lowest number 41 (December 25th, 1925). On the first day of the period 46 eggs were produced, and on the last day 80.

Two birds have been broody.

As yet no signs of cold or illness have been experienced.

There are still 47 birds to lay their first egg.

Up to the end of this period 15 birds have laid 50 eggs or over, and one bird has produced 63 eggs during 84 days. It is interesting to note that the leading pen to date (Pen 33) has produced 185 eggs, giving an average of 37 eggs per bird since the commencement of the trial; with the exception of 24 eggs, which were second grade, the remainder were special and first grade.

Below is a list of the two leading pens in each section:—

Section 1. Light Breeds. Poultry Farmers.—N. A. Ramsden, Hinksey Hill, Oxford (W.L.), 1506 pts.; Capt. P. Washington, Wokingham (W.L.), 1150.

Section 2. Light Breeds. General Farmers.—E. L. Hogarth, Littlewick Green, Maidenhead (W.L.), 1277 pts.; Admiral Clifton Brown, Faringdon (An.), 1148.

Section 3. Light Breeds (Cottagers). Single Birds.—J. Wentworth, Uffington (W.L.), 328 pts.; Mrs. A. Blake, Newbury (B.L.), 252.

Section 4. Heavy Breeds. Poultry Farmers.—Capt. D. W. Gunston, M.P., Spencers Wood (W.W.), 1973 pts.; Major G. S. N. Ashby, Hermitage (W.W.), 1789.

Section 5. Heavy Breeds. General Farmers.—W. H. Gore, Hungerford (W.W.), 2029 pts.; Mrs. W. Pilkington, Newbury (R.I.R.), 1300.

Section 6. Heavy Breeds (Cottagers). Single Birds. — Miss Hayhow, Shaw-cum-Donnington (Cd. Lang), 618 pts.. N. J. S. Wentworth, Uffington (W.W.), 244.

LEICESTERSHIRE COUNTY COUNCIL.

EDUCATION COMMITTEE. COUNTY LAYING TRIALS.

Fifth Monthly Report for the period—February 8th to March 7th, 1926.

With a general improvement in the weather conditions during the past month there has been a considerable increase in egg production among all breeds. In the four weeks of this period 2,677 eggs have been laid, an average of 18.7 per bird, bringing the total for the 20 weeks up to 10,324 eggs, giving the excellent average of 72.3 eggs per bird. One or two birds are still moulting, and a few have been broody. All the birds continue in excellent health, and no case of disease has occurred since the trials commenced.

The leading pens in each section are given below. (Figures are Eggs and Points respectively):—

Section A. Light Breeds (Five Birds).—Mrs. R. Crawford (W.L.), 424, 4069; Geo. Ryle (W.L.), 393, 3703; A. C. Moore (B.L.), 349, 3263; Crawford and Dowell (W.L.), 338, 3112; H. B. Howe (Bl. Min.), 326, 2967. Geo. Price (W.L.), 288, 2746.

Section B. Heavy Breeds (Five Birds).—Geo. Ryle (W.W.), 444, 4213; H. B. Howe (W.W.), 464, 4077; J. M. Salmon (R.I.R.), 399, 3871; Mrs. E. Ball (R.I.R.), 402, 3843; The Misses Rankin (W.W.), 440, 3727. S. Ryle (R.I.R.). 381, 3699.

Section C. Any Breed. (Two Birds).—B. J. Buckler (R.I.R.). 193, 1875; Miss Dear (R.I.R.), 153, 1517; S. Ryle (R.I.R.), 144, 1468; H. Glover (W.L.), 145, 1432. W. H Stevens (R.I.R.), 144, 1404; J. Hart (W.L.), 143 1223

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

DIFFERENT POINTS OF VIEW.

The following is the copy of a letter received from a Sussex reader. The point of view is interesting, and I venture to think some of my readers may find some interest in the attempt at an answer :—

> "Sir,—I have read with great interest various letters of your correspondents on the subject of chicken rearing. I am from the North—a sporting county—though I live in Sussex. I should like to ask your correspondents how it is that I, a breeder of Pit Game—bred for one purpose only, to fight, in-bred for some fifteen years—can lose a hen who steals her nest—in a hedge bottom ; and find her with some 16-18 chicks ; 'all doing well, four weeks later—four, not three weeks later. My pit-birds sleep out all the year, and have never heard of vitamins, ultra-violet rays, gapes—brooder-houses, buttermilk, nor seen Gorgonzola cheese or other similar rubbish. Yet last year I did not lose a single chicken from any cause whatever, but then I sit under Game hens, that have been in-bred for some 100 years. Curiously enough, I have neither birds nor eggs either to sell or give away. Nor have I any views on the subject, I merely state cold facts."

We have the cold facts, and the question is probably not so innocent as it looks, coupled as it is with the rather sarcastic remarks as to vitamins, Gorgonzola cheese, etc., which might possibly have been omitted had my correspondent fully understood the difference between breeding a few individuals for sport(?) and running a flock of birds where maximum egg production is the aim and a livelihood the object.

It is not an uncommon thing for a barn door fowl to steal its nest and bring home 16 or 18 chicks "all alive and well." Some of us have had the experience, so it is not peculiar to the Game. But in this case we have the in-bred stock ; and let us not make the common mistake here of believing that the vitality of the birds is due to inbreeding, or believing that because they are in-bred there may be necessarily any loss of vitality. When breeding Game for the purpose of fighting, the most rigorous selection for stamina is necessary, the constant selection of the exceptional individual—and it is that which has given my correspondent's birds their exceptonal vitality, and this, in part, answers his question.

Next we have to consider the environmental conditions. It will be obvious to the writer that with different objects we have to use different means to attain them.

He has referred to vitamins, ultra-violet rays, gapes, brooder houses, and "similar rubbish." Does he not appreciate the difference in rearing a few chicks for a hobby, and rearing hundreds as a commercial proposition? In the one case perfectly natural conditions may be adopted, it is the simplest way, but when the commercial egg farmer requires a 1,000 pullets each year to make his business a profitable one then the brooder house is a necessity, and it can hardly be described as rubbish. He would be aware, of course, that his Game birds find a large proportion of their food under perfectly natural conditions, and there would be no lack of vitamins, while as they would have the advantage of direct sunlight, there would be no question of ultra-violet rays. It is when birds are kept under the artificial conditions which commercial production renders necessary that these problems arise. As to Gapes, he may yet live to experience this trouble, for I can assure him Game fowl are not immune. Most of us have had Wyandottes or Leghorns, more particularly the latter, which have roosted in trees the year round, and have been remarkably healthy, but they have failed to fill the egg basket, which is the primary reason for which they are kept. Roosting in trees is not conducive to heavy egg production.

As presumably our correspondent has never bred birds for maximum production, he utterly fails to understand the difficulties with which the commercial egg farmer is confronted. He does not appreciate that a pullet which may lay six times its body weight in eggs in the course of a single year is a far more difficult problem than one which has only to be fed for bodily maintenance. As has so often been said, selection for a specific factor is always detrimental to other factors, and we have fully realised this when selecting for maximum egg production. Still our troubles would be very considerably less if we were able to allow our birds to hatch their own eggs, roost in trees the whole year round, and have free range over acres of good land, but this may not be when we are endeavouring to live.

UTILITY RUNNER DUCK CLUB.

Miss Helen Crawford, Secretary of the above Club, asks us to announce her change of address. She tells us that she has taken a small farm known as "Cottage Farm," Warsash, Hants.

Will our readers who are interested in Utility Runners kindly note.

"EGGS" FIRST AGAIN.

THE TROUBLES OF POULTRY GROWERS.

We take the following from "Truth" for March 12th:—

A WARNING NOTE.

"As an example of the unfortunate experiences of rural producers, a firm of solicitors have given me an account of a deal with Symons Bros., Ltd., of 251, Roman Road Market, E.3, who advertise for poultry to be sent to them for sale. A consignment of rabbits and fowls was sent to them from the country, but the sender received in return a cheque quite inadequate in amount to the value of his produce. When he complained Symons Bros. informed him that the rabbits arrived in a very bad condition, and that the chickens were too small to fetch good prices.

"The farmer then put the matter into the hands of his solicitors, who were informed by Messrs. Symons that they would defend to the utmost any action their client might take. Nevertheless, when a summons was taken out in the local county court, no defence was attempted, and judgment was obtained by default. The judgment, however, proved useless, for on execution being levied the property of the company was claimed by Mrs. Sadie Symons as a debenture holder."

In our issue of October 28th we published all the correspondence between ourselves and Messrs. Symons Bros. in reference to a deal with one of our members, Mr. Holdsworth, who had sent 24 cockerels and 21 old hens to this firm, and received in return a cheque for £2 5s., less returns 2s.

On February 10th we had occasion to again refer to them. One of our Sussex members sent 60 dozen eggs on 10th January, and receiving no acknowledgment a fortnight later he wrote them, and in reply received a cheque for £3, and a statement that 20 dozen of them had been smashed, with the naive remark that the box had been dropped in transit. Further, the price paid was only 20s. per long hundred. It would seem that some means are necessary to protect the interests of the producer, and we assume it will resolve itself one of these days in the poultry societies appointing their own salesmen. We should like to have the opinion of our members on this subject.

IMPORTANT.

We have of late received two or three complaints from members who have sent eggs to salesmen, that they have received a cheque for considerably less than the value of the eggs sent, and a statement that a very large percentage of them have been smashed. Take, for example, the following:—244 dozen eggs were sent to a firm in Leeds. A cheque for £5 was received in return. Later the firm wrote to say that a large percentage of the eggs were broken, and advising a claim on the railway company.

The following week 260 dozen were sent to another firm in Leeds, and the total sum received for these was £8, and again it was asserted that a large percentage of the eggs had been smashed.

I should be glad to have any information from any of our readers who have been similarly treated, as there is some reason to believe this is a new trick introduced by salesmen. We should also be glad to hear from any of our members, who have sent eggs to an advertiser in Sussex, and have later received a letter from him, saying they have never been received.

THE DEPLUMING SCABIES.

The following is copy of a letter I have received this morning, and as three or four more members have written to the same effect, and some have sent me feathers, it might be helpful if I referred to it here:—

> "Dear Sir,—I am writing on behalf of my neighbour, a woman who has a hard time to make ends meet. She has kept about 100 birds for several years and has done very well, but in one house of about 40 first-year birds, mostly R.I. Reds, a peculiar complaint has broken out. The feathers at the vent and round the abdomen either fall out or are eaten off at the base. I have looked at several of the birds and can see the stump of the feather left in; now the trouble commences. The birds peck at the exposed place, and in the first few cases, until she knew, they had pecked all the outer skin clean away, leaving a raw red sore. She has isolated all cases, but tells me this morning that another few birds show signs of the feathers coming away, but no pecking commenced. She feeds a fair proportion of greens daily and uses wet mash. I can say that she is very clean, and keeps her houses well littered. Could you send me any remedy as soon as possible?"

This trouble is due to the depluming scabies, which occasions loss of feathers in fowls, and even pigeons and pheasants, during the spring and summer. It infests that portion of the quill that lies beneath the surface of the skin. Infection may appear first on some spot on the body and progresses gradually to the neck, thighs and head, or the head and neck may be affected first. It has been suggested that treading may be the probable means of dissemination as the back is generally the first place affected. The feathers are either shed entirely or the quills break off close to the level of the skin. Sometimes the stumps are cracked and are surrounded by epidermal scales. The mites may be sometimes seen on the stumps of broken off quills or on the feathers. Frequently they irritate the bird so that she will often pluck her own feathers, and will actually set up the habit of pulling the feathers of other birds.

I have found soaking the spot with a two per cent. solution of Izal effective. Oil of caraway ointment one to five is also a good remedy, and carbolic acid and glycerine one in ten has also given good results. It is advisable to isolate all affected birds and to disinfect the perches. The birds may become in a very emaciated condition if not treated immediately.

THE MYSTERY OF THE EGG.

Mr. Curtriss has sent me a cutting from the "Children's Newspaper," which contains part of a talk by Professor Barcroft to the wise men of the Royal Institution about eggs.

It is with the last paragraph of this talk that we are concerned.

The Professor said :—

> "Lastly, just before hatching, the chick acquires powers which make it immune from disease, and the day before hatching no sort of disease would grow in the chick, and even if it were there it would be killed."

What of B.W.D. and Coccidiosis? By-the-by, is it possible for the egg to be infected before being laid with the Coccidia?

This is a point on which some information is badly needed. I should say something definite, because there appears to be a decided difference of opinion.

Perhaps we have put a wrong interpretation upon what Professor Barcroft has said, or he has been misreported, and what are the powers which the chick acquires which make it immune from disease?

MIDDLESEX AGRICULTURAL EDUCATION COMMITTEE.
COUNTY LAYING TRIAL, 1925/26.

REPORT FOR FIFTH PERIOD (4th Feb. to 3rd Mar., 1926.

Health on the whole is good. One death is recorded—No. 157, from advanced crop bind, on February 9th.

There are still a few cases in which birds have not recommenced to lay since moulting. Three Rhode Island birds and one Light Sussex have been broody for a few days during the period.

The highest daily collection was 92 on the 23rd February, and the lowest 72 on the 17th February.

The size of eggs has slightly improved again this period, there being 59 per cent. of the total weighing over 2 oz. and only 3 per cent under 1¾ oz.

SUMMARY OF RESULTS.

The leading pens in each section are (figures are eggs and points respectively):—

Section 1A (Light Breeds) (5 Birds).—Mrs. D. A. Fowler (An), 257, 2388; W. Poupart (Bl. La Br.), 287, 2279.

Section IB (Heavy Breeds) (5 Birds).—Sir J. Fitzgerald (L.S.), 413, 3692; E. Fownes (W.W.), 368, 3104.

Section II. Teams (5 Birds).—Hownslow, Pen No. 23, 303, 2663; Bethnal Green, Pen No. 24, 257, 2337.

Section IIIA, Single Birds)Light Breeds).—J. N. Williams (W.L.), 93, 772; R. W. Baker (W.L.), 91, 717.

Section IIIB, Single Birds (Heavy Breeds).—F. E. Robinson (W.W.), 82, 741; C. G. May (W.W.), 86, 649.

The same system of feeding has been adopted as in previous periods.

HERTS COUNTY EGG LAYING TRIALS.

Report for Fifth Period—February 4th to March 3rd, 1926.

Figures are Eggs and Points respectively.

SECTION 1. Open to any Breeder in the County.

Division A. Any Light Breed. Six Pullets.—Mrs E. Charles (W.L.), 509, 4431; Mr. Hedley Morgan (W.L.), 488, 4192; Mr. L. Bristowe (W.L., 392, 3467

Division B. Any Heavy Breed. Six Pullets.—Dr. Douglass (W.W.), 565, 5132; Mr. E. Holloway (R.I.R.), 464, 4169; Miss Harrison Bell (Bf. Rk.), 447, 3961.

SECTION 2. Open to Poultry-Keepers whose total laying stock does not exceed 150 head.

Division A. Any Light Breed. Three Pullets.—Dr. Douglass (W.L.), 228, 2113. Mr J. Burnett (B.L.), 133, 1098.

Division B. Any Heavy Breed. Three Pullets.—Mrs. Walrond (W.W.), 252, 2179; Mr. W. Lloyd (W.W.), 239, 2130.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to **Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing**

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from **Major Saunders**).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

N. D. D. (Durham) asks:—"Under present weather conditions when is it advisable to fill moisture trays in the incubator? The present weather conditions here at the time of writing are those of a typical March day; a cold north-east drying wind blowing."—Under the circumstances I should fill the moisture trays from the first. What the weather will be like when this is in print I cannot say. My correspondent's second question:—"Can broken-yolked eggs be sold with infertiles when taken from the incubator on the tenth day?" Had my correspondent seen a broken yolk he would not have asked this question. By a broken yolk we mean a ruptured blood vessel, and usually it can be seen starting from the air cell and running down one side of the egg like a streak of blood. The difference between a broken yolk and an addled egg is that in the addled egg there is a dark blur, which is stationary. He also asks if I will recommend a mash consisting of pollard, boiled rice, dried off with middlings and bran, and chopped onions. Also two per cent. cod liver oil for chickens three to four weeks old, which are not looking in good condition, and have slight colds; no discharge from the eyes or nose, but an incessant little sneeze. I do not think this is a particularly good mash, as I do not like rice for chicks. If the rice were boiled in milk it would be a different matter, as this would supply the lime salts, but as my correspondent suggests using it, it is not a good mash. His best plan will be to give these chicks 40 grains of citrate of iron and quinine to the gallon of drinking water, and allow them nothing else to drink. Can this sneezing be due to dust, such as dusty peat moss litter? I do not think any advantage would be gained by giving them a teaspoonful of glycerine as he suggests. In reply to his question as to whether I advise spraying eggs with warm water when the hatch begins. That must depend on the local conditions. In answer to his last question, it is not necessary to keep the incubator dampers tight down for the first week.

J. J. (Tantobie) sends samples of ingredients for chick mash. Sussex ground oats, which are not Sussex ground, 2s. 4d. per stone, or 18s. 8d. per cwt.; fish meal, 3s. 6d. per stone, or 28s. per cwt.; maize meal, 1s. 10d., or 14s. 8d. per cwt. On the whole the samples are fairly good, but one can never make ltry profitable when paying these prices, and my correspon- t would do much better to buy his mash ready mixed through S.P.B.A. He should add two teaspoonfuls of cod liver oil each pound of the mash when mixed. This will be better n mixing it with the fish meal. The agricultural cod liver is not suitable for the purpose. In answer to another ques- n, I agree with the long experienced poultry-keeper; March not a good month to hatch Leghorns; not that they are less y to rear or hatch in that month, but because they come o production in late August or early September, and after a rt spell of laying fall into a neck moult, which is avoided April hatching, while January or February Leghorns, starting lay much earlier, lay for a longer period before falling into moult. In answer to the third question, I should not consider rsh Daisy and Light Sussex a specially good dual purpose vl, and end of April would be too late to hatch them.

Worried (South Bank) sends six eggs. He put 52 eggs in a earson incubator, and ran the machine at a temperature of 3, and it varied very little from that for the first 14 days; n he had it once or twice up to 105, but never any higher. test was made on the eighth day; five clear eggs were taken t, and on the fifteenth day three addled. There are 44 now the incubator. The room temperature was between 55 and degrees. The eggs were turned twice every day and cooled ce a day until the 20th day. Only 24 chicks were hatched.— examining the eggs sent we found one was addled, and the maining five contained fully-developed chicks, but there was an lication of very great excess of moisture, and my correspon- nt would be well advised in future if he did not, under the nditions under which he is working the machine, add moisture til the tenth day, and I would also endeavour to see that the achine was ventilated correctly.

R. G. N. (Brading) sends me some feathers, and asks what sease causes them to come out as they have done. The trouble ises from a mite known as the depluming scabies, which infests e portion of the quill which lies beneath the surface of the in. I have successfully treated this with a two per cent. lution of Izal applied to the spot, but this must be allowed soak well into the skin. Another treatment is oil of caraway ntment—one to five. Also creolin—one to ten. If this trouble not checked it will sometimes cause an outbreak of feather ting among the birds. The birds getting the habit of pluck- g their own feathers, and then in that of plucking the feathers others.

E. A. (Bermondsey). In reply to his question, he could obtain Eggs" from any of Messrs. W. H. Smith and Sons' book- alls, or make arrangements with his newsagent to obtain it r him. He tells me that last year he bred six R.I. Red pullets April, and bought this year a good R.I.R. cockerel for £1, hich is reasonably cheap; after which he thought his pullets ere not good enough for, so he kept two of the best of em and killed the other four, and has two weeks ago bought om a man at Derby seven R.I. Red pullets (as he termed em). Two are at least in their second year, and although they l look well, he is only getting two and three eggs a day from e nine of them, and one of them is laying an egg without a ell, and before he can discover it they eat same. Can I please ll him how he can trap them, and the best daily food to give em.—My correspondent must understand first that unless he is member of the S.P.B.A., replies cannot be sent him through e post. He will see trap-nests advertised in these columns. is possible that these hens are in an overfat condition, and at he must ascertain himself by feeling the abdomen. If this full and hard, he will know they are overfat. With regard feeding: He could use the following as a wet mash (probably has been feeding wet mash, and it would be advisable for im to continue):—7lbs. clover or alfalfa meal, 7lbs. bran, lbs. middlings, 14lbs. maize meal, 14lbs. Sussex ground oats, lbs. fish meal. As grain feed my correspondent should give ual parts wheat and maize in the litter. It seems to me tremely improbable that he will get hatchable eggs from this n unless he gets the birds into better condition.

W. B. (Cupar) intends building a poultry house, and would like me to give him all the particulars regarding length, breadth, height and air space of what I consider the most up-to-date house, and, roughly, how many boards he would require of the different lengths for housing 100 birds on free range. I am sorry I cannot give him the particulars he requires. I would suggest he writes to the Ministry of Agriculture, 10, White Hall Place, S.W.1, enclosing 1/- for their "Plans on Housing." It would be far better than I can give him through these columns, and the plans would be very helpful to him.

W. E. R. (Guildford), whose questions have been answered under Editorial this week, has written since requesting that we will answer the following with the others:—"In the event of hens laying soft eggs, would it be a help to put some form of lime in the drinking water as well as introducing it into their mash? If so, what form of lime would we advise and what quantities?"—As has been pointed out so frequently in these columns, shell-less eggs are not always due to an inadequate supply of lime, but frequently to the inability of the hen to assimilate sufficient lime for the purpose. They are most prevalent at this season of the year, and more particularly with prolific layers. The ration which has been fed with success in the autumn may often prove too stimulating to a good layer in the flush months of the year, and modification should take place in this direction. It is inadvisable to feed maize or a high percentage of animal food during the flush months to prolific layers. Far better results would be achieved if the rations were modified in this way than by giving extra lime in any form.

"Interested" (York). Birds which are line-bred or bred for a specific factor are far more likely to be prepotent than those which are not, for the reason that the selected factors are the dominant ones. (2) Out-crossing would not result in single-combs among your Wyandottes, unless the individual introduced was impure for rose-comb—i.e., carried the single-comb factor.

E. T. J. (Pershore) wishes to "pedigree" some eggs from individual hens, and he has no pedigree tray in his incubator, and would like to know what he can do. He can place them in bags made of book muslin on the principle of a lady's "Dorothy" bag. Put the eggs in on the 19th day, and leave them there until the hatch is over. It is not advisable to put more than six or eight eggs in one bag. He has a very high percentage of infertility in a pen of Leghorn hens—six in number—running with a three-year-old male. The birds are in excellent condition and laying well. I am disposed to think the trouble arises with the male; possibly his spurs have not been pared. If this is done at once it may lead to a great improvement.

F. R. (Matlock) has had a bad hatch, and sends me four eggs by post to know if I can tell him the reason. Obviously I am not able to say from four eggs why a bad hatch should occur without further details. One egg was addled; in two others the chick was fully developed, but very small, with membrane dry and tough; in the other the chick was also fully developed, but the membrane was moist, and I can give no reason why it did not hatch. I can only conclude that the two mentioned were stale eggs, or had been badly stored. Will "F.R." send more details and more eggs in future? The sample of dry chick feed sent is a very good one, free from all indigestible seeds, not one of the "pretty" mixtures merely made to sell.

E. P. W. (Newcastle). Do not be alarmed at what your chemist told you, the sulphate of copper will not have any ill-effect on your birds in the dose advised. It is an old and well-tried remedy, and we would not recommend it if it were not. Fowls are apparently immune, or at least have a far greater resistant power to poisons which would prove fatal with mammals. (2) Certainly, I believe external characteristics are of great value in choosing a breeding male, but if I were mating a pen for heavy egg production I would not rely on the external characteristics, I should want the dams' and the sires' dams' records. If the choice of two brothers were offered me from a high record dam, I should choose the one which possessed the characteristics of the dam in the greatest degree.

Correspondence.

THE INTENSIVE SYSTEM.

To the Editor of "Eggs."

Dear Sir,—Please let me first correct an error in my article in this week's issue *re* the five houses. The measurements should read: 5ft. high in front and 8ft. at back, and not 3ft.

The houses used in 1910 were not the "City" houses. They were, however, small houses about 10ft. x 5ft., with boarded floors. As you say we are not out to make points on each other, but as your influence is so great, and so widely felt, I ventured to put forward another view respecting the intensive system. I am not infallible—far from it, but I must still adhere to the considered opinion that the intensive system never will be as suitable or as profitable as the semi-intensive. In fact, if I say what I think, I do not believe it can ever be made profitable at all for large numbers. The disadvantage you refer to in the "bare patch" in front of the semi-intensive houses can be mitigated, if not altogether removed, by the smaller unit of 100 head, which keeps the birds more evenly distributed over the land, by liming frequently as we do, and by, in wet weather, carrying a few crystals of sulphate of copper in the pocket, and putting a very small number in the puddles that form. I can assure you that with trough feeding the birds do roam to the further extents of the paddocks freely. All the same, I agree 33 acres are not sufficient for 6,000 layers. It is only by the free use of lime round the houses, by basic slag on the turf, and by periodical long rests that we can attempt to maintain this number. I did, however, keep 8,000 once on the same farm, most unwisely, of course. Still I think that the epidemic of last year was not the direct result of overcrowding. Certainly not, in the houses, but it might well be indirectly so caused by the exhaustion of the minerals that poultry obtain direct from the soil. That is why I continue to supply mineral salts and steamed bone flour daily in small doses. There is strong evidence to support me in continuing to do this, both in regard to the high fertility of the eggs, the vigour of the chickens, and the general health of the stock.

Yours faithfully,
T. W. TOOVEY.

STOCK POULTRY LAYING RECORDS AND THE ALTERNATIVE SCHEME.

To the Editor of "Eggs."

Dear Mr. Newman,—It seems very peculiar to me that Mr. P. Hedworth Foulkes is such a great supporter of the Ministry of Agriculture's Stock Poultry Laying Records Scheme, especially since he says that he is one of the pioneers of laying competitions.

Such letters as that written by Mr. Foulkes last week are intended, in my opinion, to rush a scheme through before it has been thoroughly considered. I do not agree with Mr. Foulkes that there is room for both schemes. What we want is one scheme, if we have any, and that to be well thought out before being tested. Surely you will agree with me that it would be very unwise to put such a scheme forward before it has been thrashed out by those it will affect, i.e., the breeders.

As regards Canada exporting birds abroad, we export far more stock birds from this country to Canada than she sends here. In my opinion the scheme is best left alone, and I am certain we shall lose a great deal by not doing so, unless it is first thoroughly considered by the men whom it is intended for—the utility breeders of this country. The reason for my repeating the Utility Breeder is because I assume that this scheme is intended for him, but it would be wise to know this fact.

As breeders of long standing, have we to have a scheme forced upon us, or are we to consider it thoroughly first? The scheme put forward by the Ministry of Agriculture is not workable in this country, and will, if forced into being, induce more dishonesty in the Poultry Industry than ever before.

Let the Government Scheme drop, because if it is carried out as suggested, it will take an enormous sum of money, or do no good. If it is intended to stop the faking it will take an army of officers and super-officers to do this, but perhaps some of our friends contemplate a nice soft job.

The breeders of to-day stand on their reputation, and it is not fair for any scheme to spoil this. I can safely say that my exports last season abroad were over 1,000 birds, and I personally am *not* afraid of Canada or any other country.

Yours,
TOM BARRON.

LARGE AND SMALL UNITS.

To the Editor of "Eggs."

Dear Mr. Newman,—I have read with very great interest your recent articles on the Intensive method of keeping poultry, also Mr. Toovey's letters on his management of poultry farming for commercial purposes.

Now, Sir, as both you and Mr. Toovey are what I might call inveterate opponents of the large unit principle and the mass method of production, while I am one of the biggest advocates of this system, I trust you will allow me a little space to defend these principles.

Your recent articles to me rather suggest that you have now so much faith in the Intensive system that you would go as far as risking changing over from the well-tried Semi-Intensive system to the totally Intensive, while Mr. Toovey, on the other hand, will have none of your Intensive ideas, but will with you enounce the large unit and the mass production of hicks by artificial methods, trusting to the hen to do ll his incubating and rearing.

I would like to ask you your reasons for stating that he Intensive method would not be suitable for large inits. Has it been tried recently? I agree with you hat because a thing has failed in the past that is no eason why it should fail now when so much more is mown scientifically of the management of fowls. For nyself I cannot see why you are so emphatic about he failure of intensively kept large units.

Further, have you in your various visits to Commerially-run Semi-Intensive Farms found it the rule that he flocks are allowed to paddle about in filthy conlitions and in stale or unsanitary runs? My experince is that most of these farms are well run, and the oirds healthy and clean.

Personally my 11 years' experience of mass methods of producing chicks and housing the adult birds in large units up to 1,700 is an unqualified success, and has many advantages over all other systems I have hitherto seen. The Semi-Intensive method of farming combines the advantage of the Intensive, and, to a very large extent, the free range systems, providing your houses are built right, and you keep your runs sweet.

With our principle you keep your birds intensively during adverse weather conditions, and there is no question at any time of the birds running in wet dirty yards, while when conditions are favourable the birds have their liberty, which, as everyone knows, is so much appreciated by them after a spell of house captivity. The exercise is undoubtedly most healthy for them, and with care the runs can be kept sweet and clean for a great number of years.

In the matter of running 1,700 birds in one unit I have always found from every point of view that it is better than running them in, say, flocks of 500. The labour is less, cost of construction is less, and the supervision is less, while the egg yield suffers nothing.

Mass methods of incubation has innumerable advantages—its cheapness, its regularity, and average results are only a few. I have in the past eight years incubated over 250,000 eggs, and have had an average of 68 per cent. of all eggs put in. Would Mr. Toovey's hens do better?

Again there is the question of chick rearing. I find over the same period that my chick losses amount to some 13 per cent., but when I consider that I have 10,000 chicks at a time in units of about 500, and only two attendants to look after them, and I use about a ton of coal a week, I have nothing very much to kick about. I can arrange my hatches as I like. Can Mr. Toovey's method approach mine in regularity and ease of management?

There is, you will say, the spectre of disease always hovering over my large units. What would happen if you did have an outbreak? My answer is that so far I have escaped, and providing I still insist on my present hygienic system, I see no reason to expect any outbreak. If I did get bitten, then I think I would isolate the particular part of the farm, lock the birds in their house, kill off all suspected cases, appoint the necessary number of attendants to look after the sick birds, and forbid intercourse between them and the other members of the staff. All food and other necessaries would be brought to the house by indirect routes. So far my losses occur amongst the adult birds through egg trouble, heart or liver complaints, and these account for some five per cent. losses annually.

I am afraid that I have already encroached terribly on your space, but I would like to say this. I sincerely hope that you will prove correct, and that it will prove possible to rear and maintain one's flocks intensively, and I cannot see any reason why if in a small way it is successful, it should not be in a large way. I will be the first to change over directly I am sure it is right. The advantages would be many—less land, less capital, nearer markets, and practically no risk of outside infection. Yes, Sir, I hope you are right.

Yours very truly,

HECTOR M. MORISON.

Mr. Morison is mistaken in suggesting that we stated the intensive methods would not be suitable for large units; we said no such thing. The actual words used at the conclusion of the paper were:—

> "I most emphatically do not believe in large units for this system, or for that matter, for any other system. The most economical unit is the 100."

We never suggested it was not possible to keep a large number of pullets intensively, only that better results would be obtained from the smaller unit.

We would like to take this opportunity of asking Mr. Morison whether he is serious when he suggests that his chick losses for a period of eleven years really only amount to 13 per cent., because the figures are so remarkable that we should much like to see them. We are, of course, presuming that a correct record has been kept during all these years, from the time the chicks were removed from the incubator. If Mr. Morison will send us complete figures for all these seasons we will most gladly publish them, for we are sure they will be of considerable interest to our readers.—(Editor).

SUNDAY—BAR.—WIND N.E., STRONG TO A GALE.

To the Editor of "Eggs."

Dear Sir,—Having just come in from egg-collecting which demanded—in the houses occupied by heavy breeds—crawling on all fours in my No. 1 suit, or otherwise my best suit—I like to put a decent suit on Sundays. One feels a little change, and, of course, it is necessary, if only to show that one possesses such a thing.

Well now, to reply to Mr. Bygrave's letter, which I am sure will bring glad cheer and sighs of satisfaction to one of your correspondents who thinks of taking up P.F. with no experience.

I could have written just such a letter in defence of the heavy. Mr. Bygrave now admits that it is necessary to hatch out heavies in January and February to make this 2/- profit per cockerel, so I think that proves my figure of 1/- on the March-hatched bird, which I am taking against the April-hatched Leghorn.

As to 2/3 being realised for heavy hens—I just stated a fact—very unpleasant things sometimes.

Heavy hens sold by me last month fetched 6/9. They had not laid for some time, but what does that matter if they fetch such a price against 1/6 to the "panore" to Leghorns, even though the latter may have laid four dozen eggs more against these heavy culls?

Selling these heavy hens privately sounds all right, but not so in practice. How big is the market that returns more than the retailer charges?

If my experience is any good to anyone, I should advise against keeping heavy breeds, unless one trapnested in the winter and had a demand for culls and hens, also crate-fattened cockerels. My stock consists of 75 per cent. heavy breeds, but if the whole of my stock were Leghorns I should find time for evil deeds, or, in other words, were I to put in the same amount of labour on Leghorns as I do now with my present stock, I could keep quite 50 per cent. more, and have a more straightforward business, and not a "dibbling-niggling" one.

Commercial egg farming, as I define it, is buying in bulk and selling in bulk—that's sound business. One correspondent said he kept White Leghorns because they laid when heavies were broody. Fancy a man who has his living to get at the game keeping a breed to lay when eggs are 1/3!

Another gentleman, who favours the heavy, says that he gives the same treatment to his Leghorns. If that gentleman will excuse me, I should say that is where he is making a big mistake. If Leghorns are going to "put out" eggs in winter, which they can do, they need more corn and a less bulky mash than heavies. I never feed bran to Leghorns in winter, but I have found heavies get quite fat on it. Some of them, of course. The difficulty I find with winter feeding of heavies and lights is that with the former it is difficult to keep from getting fat when fed generously, to keep up its body weight, but in Leghorns I always find it is not so easy to keep the weight there. Leghorns can take a fattening ration in the winter and keep in laying condition.

One of the businesses in which I have been engaged is that of a grocer, and I can assure Mr. Bygrave that my experience in that trade, so finely cut, has kept me fully alive to detail, when he asks, "Do you know what is the cost of fertilising the egg?" But I should say that Mr. Bygrave's business experience has been cast in a more generous place, as he stated that the Harper-Adams' figures satisfied him, but what about, may I ask, the numerous advantages of the Leghorn—in feeding costs—which I state is 2/- less per bird per year, rearing cost, etc., etc.?

Another big item also. If I wanted eggs from White Leghorns in November I should not move them, even on my own place, to a fresh house two weeks previous, but with heavy birds a week generally settles them down, but a Leghorn will take a month. One thing, Laying Tests start too late, and the official start is too near the date of the birds' arrival for White Leghorns, at any rate.

One thing more in conclusion—as I shall have no more time for taxing our very much respected Editor this season—Mr. Bygrave asks, do I doubt that January-hatched cockerels can be raised for 5/- per bird and fetch up to 10/- or 12/- at fourteen weeks?

Well, I do not believe it, because if such were the case, I should sell off all my laying houses, equip myself with a Mammoth incubator to take two to three hundred eggs, which can be bought, get all these birds off before June ends and retire to a seaside haunt for the rest of the summer, and how I should chuckle when riding in a "charabanc" on the environs of Brighton, where egg farms exist, to see the attendants chasing White Leghorn cockerels. "Lord, what fools ye mortals be!" would be my thought.

In fact, I think I will start a company in £100—10 per cent. cum-participating Deb. stock—only old maiden ladies will be allowed to take stock in this profitable (?) company. No, readers, I shall not put money into it, I would rather put mine on the oldest horse running in the Grand National.

With these few remarks I will close my correspondence on this matter in this merry month of the North Easter, which Mr. Bygrave does not mind putting in extra to produce the heavy breed cockerels.

Yours truly,

V. J. YOUENS.

CONUNDRUMS.

(1) Why do nearly all egg farms keep the light breed?

(2) Why do January-hatched chicken fetch 3/6 lb. when sold as soft roasters?

DEVON COUNTY EGG-LAYING TRIALS, 1925-26.

REPORT FOR THE FIFTH PERIOD (Feb. 4th, 1926, to Mar. 3rd, 1926).

During the month Bird No. 81 was broody, and six birds fell into moult. White Leghorn No. 46 is in low condition, and is receiving treatment in hospital. The health of the remaining birds continues excellent. Nos. 91, 95, 125 have yet to lay their first egg.

LEADING PENS TO END OF FIFTH PERIOD.

Figures are Eggs and Points respectively:—

Light Breed Section (5 Pullets per Pen).—Mr. H. C. Wood's W.L., 484, 4490; Mr. G. K. Simmons' W.L., 406, 3396; Messrs. J. & L. Grimson, W.L., 356, 3384.

Heavy Breed Section (5 Pullets per Pen).—Brig.-Gen. M. E. Richardson's W.W., 467, 4378; Messrs. A. & J. Rew's W.W., 454, 3791; Mr. G. V. Thompson's W.W., 411, 3787.

Single Bird performances to end of Fifth Period.—White Wyandotte No. 165, 103, 1094; White Wyandotte No. 167, 114, 1047; White Wyandotte No. 186, 99, 1041.

BURY AND RADCLIFFE JOINT LAYING TEST.

Report for Fifth Month.

This test is being run at the Taylor Lane Poultry Farm, Breightmet, Bolton (manager, Mr. J. Halliwell.) Two birds in each pen, there being 14 pens in heavies, and 25 in the Light Section. Red ribbons are given each month for best pen in each section, also blue ribbon for best individual bird in test each month. A special prize will be given for best pen in each section at the end of six months, and also a special, same value, for the latter six months; the best individual bird also gains a prize over the same periods. The leading pens in this month's table are (figures are eggs and points respectively):—

Light Section.—Myles, Houghton, 106, 776; T. P. Taylor, 107, 738; J. Berry, 119, 695; J. Shepherd, 111, 658; J. Ratcliffe, 107, 657; J. Shaw, 83, 568.

Heavy Section.—S. E. Lonsdale, 201, 1337. J. Haslam, 187, 1208; F. Haslam (L.S.), 1194, 1114; T. P. Taylor, 159, 1105. A. Warburton, 142, 897; S. E. Lonsdale, 118, 726.

Bird No. 70, White Leghorn, belonging to J. Shepherd, died March 9th, 1926

Pigmentation.

Its explanation and use as a reliable test for Laying Qualities.

By CYRIL GRANGE.

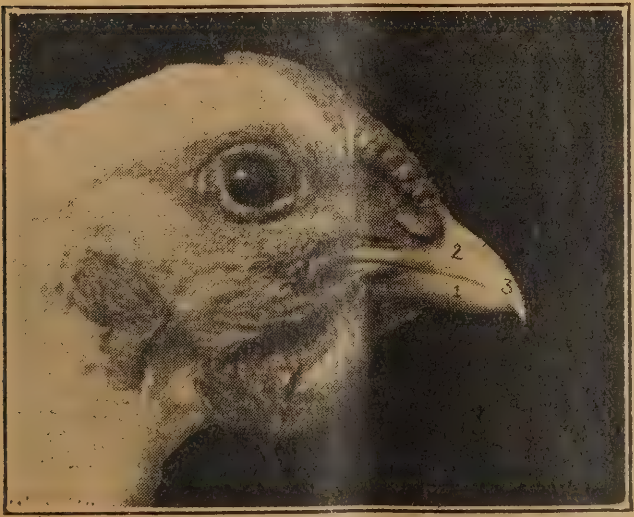
Many are the tests put forward for the purpose of differentiating between the good and bad layer, but quite a number are misleading, inaccurate, or require some other detail to confirm their accuracy. On the other hand, the way in which the pigment is taken from various parts of the body indicates in a fairly reliable manner, the performance of that bird as a layer. This test is only of distinct value when recorded by the yellow-fleshed breeds.

Before we lay down any particular observations, it would be better to understand something about what actually happens.

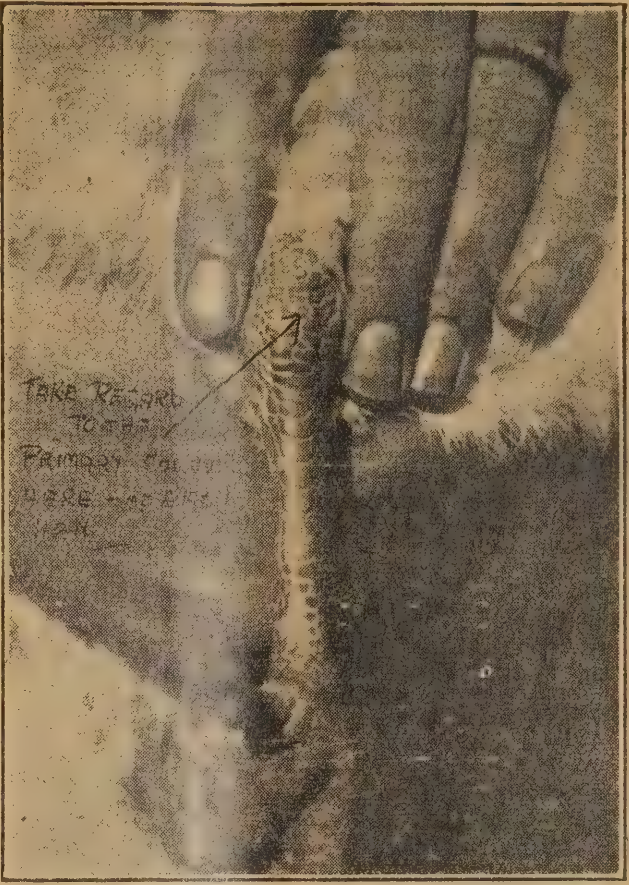
A pullet, as it reaches maturity, stores up fat mainly around the abdomen, but also in many other places, all over the body, some of which places are just under the skin, so that they are noticeable to us. With this fat is stored a yellow pigment called zanthophyll, and it is this that gives the colour to the fat, and which we may notice in the yellow legs, yellow beak, and so on.

As the bird lays, the fat is drawn upon, and with it goes the yellow pigment, and it is obvious then that if we may note the parts of the body which are longer in losing that zanthophyll, we may give ourselves an accurate guide to laying. This then is the explanation of the pigment test.

It is natural that the fat is drawn easiest and first from those parts of the body where there is the most efficient blood supply. It is found that the bleaching takes place from the following parts of the body in order :—Vent, eye ring, ear lobes, beak, and lastly shanks.



No. 1.



No. 2.

Thus, **all things being equal,** a bird with bleached beak is a superior layer to one whose eye ring is only just turning pale, and so on.

To enable us to be more accurate, the beak bleaches first at the lower mandible, then the base of the upper mandible, and then gradually bleaching towards the tip of the upper mandible. (See No. 1.)

As regards the shanks, these get paler from the front first, round to the sides, then the back of the legs, and lastly just below the hock. (See No. 2.)

As a slight variation in colour may mean a considerable difference, all pigment observations should be made in the daylight, and not by a yellow artificial light.

During a period of rest the pigment returns to the parts in the same order that it went out, but rather quicker. Thus a period of rest would be indicated by a layer having a yellow vent and a bleached beak—this would show that the bird had just ceased to lay.

Many mistakes are made in regard to the selection of birds by examination of the pigment, because individual circumstances are not considered. This fact is important, or we may possibly cull out good birds.

Circumstances affecting the increase or decrease of pigment depositing are :—Soil, vegetation, feeding, size, coarseness of flesh, date of hatching, and actually primary colour at hatching.

As regards soil, bleaching is encouraged on sandy or alkali soils, and, on the other hand, clay is inclined to give a deep rich tint. This is useful to know in the case of exhibition birds.

Vegetation, supplies of fresh grass, lucerne and clover, supply considerable quantities of zanthophyll, as also does the feeding of ample green food, such as cabbages.

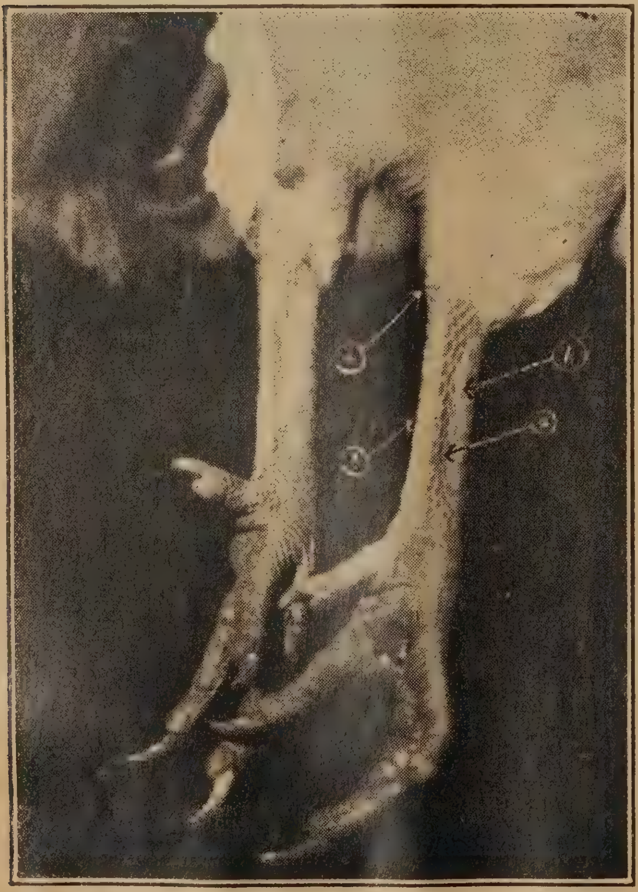
Feeding.—Birds deprived of green food bleach quicker than otherwise, and white maize meal does not encourage its deposition. Yellow maize meal has a certain effect, however, and if heavily fed along with maize as a grain does really retard bleaching.

Size.—The larger the bird, the longer it takes to bleach, and vice versa ; the same with the coarseness of flesh.

As is known, some strains of, say, Wyandottes, exhibit a more decided yellow in the leg than others. This must be considered.

Then again, the date of hatching causes variations in the sequencies, periods of rest, etc., and if not considered may lead to wrong deductions.

It has been found by trapnesting and individual observations that the number of eggs a bird has laid since the last rest may be gauged with some degree of accuracy. A bird with a bleached vent (pink or white) may be understood to be actually in lay, one with a yellow one is not laying, unless she is absorbing her yolks or misplacing them in the abdominal cavity.



No. 3.

Generally speaking, when the vent is completely bleached the bird may be taken to have laid three eggs. At the bleaching of the eye-lid five eggs have been passed out, and at the ear lobes ten eggs. The beak means a production of about five weeks ; when the base is pale fifteen eggs, the lower mandible 20, middle upper mandible 28, and when all has lost its colour 32 eggs or so.

The shanks, bleaching last, mean a production of 15-18 weeks, or more in the heavy breeds. Bleached front shanks of a Wyandotte may be safely placed at 50 eggs, a Leghorn 40, and a Rhode Island Red 60 eggs. As soon as the shank is completely bleached, it may mean 100 eggs with a Wyandotte, 90 eggs a Leghorn, and 110 eggs a Rhode Island Red.

As regards the primary colour at hatching, this may be very easily compared by examination of the colour at the back of the leg, just below the hock. (See No. 3.) This is the last to be bleached, and is a reliable guide when comparing birds with naturally different tints. With those breeds that have dark-coloured legs, withdrawing of pigment causes the black to lose its shininess, and the pinkish tint to become white.

Intermediate assumptions of the number of eggs laid may be determined by the tint of the pigment. For instance, a " white " ear lobe would be cream-coloured in an intermediate stage.

Of course, these figures should not be regarded as infallible or exact. There is no method by which we may be able to state the exact number of eggs laid, but provided individual environment and circumstances are considered the comparing of laying qualities by the pigment test is quite reliable.

CLITHEROE AND DISTRICT UTILITY AND FANCIERS' POULTRY SOCIETY.

SIX MONTHS' SINGLE BIRD LAYING TEST, 1925-26.

Fifth Monthly Report.

In the first 12 weeks eggs over 2ozs. receive 9 points; 1¾ozs. to 2ozs., 8 points; under 1¾ozs., 6 points. In the second 12 weeks, over 2ozs., 7 points; 2ozs., 6 points. under 2ozs., 4 points.

Heavy Breeds.—J. R. Jackson, Downham (W.W.), 785 pts.; P. Warren, Entwistle (R.I.R.), 780; A. Snowden, Crosshill (W.W.), 704; J. H. and W. Brayshaw, Keighley (W.W.), 675; L Infanger, Grindleton (W.W.), 674; T. Dobson, Inglewhite (B.O.), 673. W. H. Bradshaw, Preesall (W.W.), 667; W. Boulton, Stoke-on-Trent (L.S.), 653; J. H. Heap, Wilmslow (W.W.), 646; F. C. Tomlinson, Seaford (L.S.), 643.

Light Breeds.—Miss Greenwood, Worston (W.L.), 688 pts.; T. Bickerstaff. Clitheroe (W.L.), 643; P. Warren, Entwistle (W.L.), 618. R. Beesley, Lytham (W.L.), 539; Jowett and Son, Scarborough (W.L.), 520; Major Aspinall, Pendleton (W.L.), 474; T. Saunders, Chatburn (W.L.), 463. J. R. Jackson, Downham (B.L.), 461; Wilson and Whittaker, West Bradford (W.L.), 433; W. Barker, Burton-on-Trent (W.L.), 433

Twenty-one eggs not recorded. Total eggs (143 days), 7966; 167 birds. ten birds dead.

The Goat-Keeper's Diary

III.

By **MRS. G. EPPS.**

17th March.

Even in well-conducted families the question sometimes arises: "What to do with all the milk the goats are giving?" Where livestock of any description is raised, goat's milk is always of very great value. Its digestibility and well-known freedom from tubercle makes it very easy to handle, and it can be used either "au naturel," diluted with water, skimmed or scalded with benefit in each method. Believing that cooked food is devitalised food, and therefore much reduced in value, I think the most economical way of using milk at this time of the year, when it is so plentiful, is to stand it in a cool place in shallow pans for twenty-four hours, skim off the cream for the use of the household, and use the skim milk for any young livestock that is being raised, or for fattening purposes. Chickens do excellently on it, as do young rabbits, puppies and calves. A goat-keeper that I know adds several pounds to her income by purchasing a young calf in the spring in the local market, where they are sold very cheaply, rearing it on surplus goat's milk, and selling at a good profit later in the year.

Of course the ideal way of disposing of extra milk is to retail it to a near neighbour and in the vicinity of a town there is no difficulty in doing this; but poultry farmers cannot buy any food so valuable in rearing young stock as goat's milk, and should, therefore, never be under the necessity of looking for customers.

When the milk is used for livestock greater care than usual should be exercised in keeping pans, etc., well scrubbed out.

20th March.

One of my goats that had not yet kidded, but too heavy to put up a defence, was badly ripped to-day by a horned member of the flock—the only one I retained solely as a long lactation goat who carried us over a rather "dry" period. The injury appeared to be somewhat alarming, but I decided not to send for a vet., knowing what a wonderful capacity goats have for healing up quickly and cleanly if not interfered with unduly. Animals and the most primitive among human beings seem to have a natural immunity from infections which seize more civilised beings with oft-times fatal results. This has often brought to my mind the experience of a friend who was attached to some Red Cross unit, moved to pity at the shocking neglect of the women in childbirth in a certain wild part of Russia. The unit was organised and despatched and began operations, much against the wishes of the victims of this shocking neglect. Sterilised instruments, hygienic surroundings, and dressings, disinfectants galore took the place of filth and apathy, and the women began to die off like flies, where previously all had gone well. The end of the story was that the hospital had to quickly depart. With the goats it is much the same, but only considerable experience can enable one to decide between a case to be left alone and one where elementary first aid or skilled assistance is needed.

In this case I have decided that the horned aggressor shall be isolated until a purchaser wants to add her to his collection, as my other goats are hornless and very peaceably disposed.

(Continued at Foot of Next Column.)

FOOD PURCHASE SCHEME.

From a number of letters recently received, it appears that it is not a well-known fact that grains of every description can be purchased under this scheme.

May we therefore state, that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns.

We cannot give prices here, as space will not permit, but price lists will be despatched immediately to any member, if application is made to this office.

Referring to the odd cwts. which are now to be supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown.

This is to cover the extra expenses and handling, which the one cwt. business involves.

PRICES OF MASHES, ETC., PER CWT.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	11/0	11/0	11/3	11/9
F.O.R. LIVERPOOL	11/6	11/9	13/0	13/0
F.O.R. LONDON	11/6	11/6	12/6	12/9
F.O.R. LONDON	11/3	11/3	12/3	12/6
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/8	12/0	12/6
F.O.R. KING'S LYNN ...	11/0	11/0	11/6	12/3
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/0	11/0	11/9	12/6
F.O.R. SOUTHAMPTON .	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH ...	12/0	14/0	12/6	14/3
F.O.R. ABERDEEN	12/0	13/6	13/6	13/0
F.O.R. HARROGATE ...	11/6	11/6	12/3	12/9
F.O.R. GLASGOW	12/0	12/0	12/0	13/0
F.O.R. STAFFS	11/0	11/0	12/6	12/3
F.O.R. SUSSEX (East) ...	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/9	11/3	12/0	11/9
F.O.R. SUSSEX	11/6	11/6	12/6	12/6
F.O.R. BRADFORD	11/6	11/6	12/3	12/9
F.O.R. BIRMINGHAM ...	11/6	11/6	12/3	12/6
F.O.R. GREENOCK	11/6	12/0	12/9	13/3
F.O.R. TEWKESBURY ...	11/9	11/9	13/0	13/3
F.O.R. BOLTON	11/9	11/9	12/9	12/9
F.O.R. MIDDLESBROUGH	11/3	11/0	11/3	12/3
F.O.R. PARTRIDGE GREEN, SUSSEX	11/3	11/6	11/0	12/3
F.O.R. HULL	12/3	11/6	12/3	12/9
F.O.R. ESSEX	11/0	11/0	11/9	14/3

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	17/0	14/6
F.O.R. LIVERPOOL	18/3	14/9
F.O.R. LONDON	17/0	15/0
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEICESTER	16/9	14/9
F.O.R. KING'S LYNN	17/0	14/9
F.O.R. BELFAST	18/0	16/9
F.O.R. BRISTOL	17/3	14/9
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	14/6	13/6
F.O.R. HARROGATE	17/6	15/3
F.O.R. GLASGOW	17/0	15/0
F.O.R. STAFFS	17/0	14/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	17/0	14/9
F.O.R. SUSSEX	18/0	14/9
F.O.R. BRADFORD	17/6	15/9
F.O.R. BIRMINGHAM	18/0	16/0
F.O.R. GREENOCK	18/3	15/0
F.O.R. TEWKESBURY	18/3	16/3
F.O.R. BOLTON	17/0	15/3
F.O.R. MIDDLESBROUGH	17/6	16/0
F.O.R. PARTRIDGE GREEN, SUSSEX	17/3	15/3
F.O.R. HULL.	15/9	14/6
F.O.R. ESSEX	17/9	15/9

	Per Cwt.	
Fish Meal (Pure White)	18/3	F.O.R. LONDON.
,, ,, ,,	18/3	F.O.R. BRISTOL.
,, ,, ,,	17/9	F.O.R. SWANSEA.
,, ,, ,,	17/9	F.O.R. TYNEMOUTH
,, ,, ,,	17/9	F.O.R. GRIMSBY.
,, ,, ,,	17/6	F.O.R. BRADFORD.
Special Fish Meal	17/3	F.O.R. MIDDLESBORO.'
Meat Meal	15/0	F.O.R. LONDON.
Meat and Bone Meal	13/6	F.O.R. LONDON.

		Per Cwt.
MAIZE GRITS	F.O.R. LONDON	10/6
MAIZE GRITS	F.O.R. IPSWICH	10/6
S. G. OATS	F.O.R. LONDON	13/0
S. G. OATS	F.O.R. SUSSEX	12/6
S. G. OATS	F.O.R. BRISTOL	12/9
MAIZE GERM MEAL	F.O.R. LONDON	8/0
MAIZE GERM MEAL	F.O.R. IPSWICH	8/0
MEAT AND BONE MEAL	Carriage Paid	15/3
MEAT MEAL	Carriage Paid	15/9
ALFALFA	F.O.R. LONDON	11/6
,,	F.O.R. BRISTOL	11/9
BONE FLOUR	F.O.R. LONDON	9/6

It would be of very great assistance if members when ordering would always state station they wish goods despatched to.

SPECIAL.

We are able to offer this week a special sample of Fish Meal, with the following analysis:—

OIL	4.5 per cent.
ALBUMINOIDS	55.60 ,,
PHOSPHATES	16.18 ,,

At following prices, F.O.R., London. Under 5cwts. orders 18/9 per cwt.; 5cwts. and upwards, 17/9 per cwt.

London Market Advice Table.

By **A. V. CLARKSON.**

APRIL, 1926

From now onwards poultry farmers will be seriously considering the question of disposing of their surplus stock, and this is the most serious side of poultry farming, but one which to a great extent has been much neglected. The marketing of a farmer's produce is the realisation of his capital and his labour, and if this is not done properly how can any man hope to succeed? If one carefully studies the failures in poultry farming, it is alarming how great the percentage is of failures caused by bad marketing. Everyone should spend three-halfpence, tell his salesman his approximate numbers and weights, and ask the salesman's advice as to which is the best time and manner of marketing his particular produce, and the approximate realisation price. Even assuming that the producer is going to sell his birds locally, the knowledge gained from the market will enable him to make a proper deal.

SPRING CHICKEN.—Spring chicken are in demand from 1½ lbs. upwards. Where a producer has not the skilled labour available for killing and plucking these birds, they should be sent alive, and the salesman will do it for him at a nominal charge. All spring chicken are greatly improved by a fortnight in the fattening pen. Ordinary surplus cockerels which have never been so treated have a very poor appearance compared with those which have been in the pen, and their realisation price is proportionately smaller.

POUSSIN.—These are in steady demand now for some weeks. For those who are unaware of the manner and method of marketing this class of bird, I would state that the demand is for a bird scaling not less than 12 ozs. and not more than 20 ozs. They should be killed and clean plucked (including stubbing). BUT SHOULD NOT BE TIED DOWN OR DRAWN. They should then be nicely packed in boxes (chocolate boxes can be obtained from any local grocer), each of which will hold one dozen. Use green leaves or reeds for packing if obtainable.

HENS.—Hens should be sent alive. The Light Breeds should not be mixed with the Heavy Breeds, and where a producer has Leghorns scaling 4 lbs. or over they should be packed separately and the salesman notified to this effect.

DUCKLING.—The only duckling in demand on the London Market is one that is white, and scales 4 lbs. or over when killed and clean plucked.

OLD COCKS AND OLD DUCKS.—These can be sold, and should be sent alive.

EGGS.—The demand for eggs is now much firmer after the terrific glut and accompanying fall in the price. Senders using their own boxes should be sure their name and address is written inside the lid. Duck eggs should be sent as clean as possible, because it is very difficult in London to sell a dirty duck egg. Of course, hen eggs must be sent clean, but it would appear from experience that the **bulk** of duck eggs are dirty.

PLOVER'S EGGS.—Any farmer, who lives in a district where Plover's eggs are obtainable, should bear in mind there is a heavy demand for them on the London Market for this month and next. Seeing that they cost nothing, except the carriage to London, it will pay them to get to work. It will hardly pay to send less than a dozen, and they should be packed in BRAN, because they are so fragile, and a dozen or two can be sent by parcel post so packed.

ANSWERS TO QUERIES—Continued.

M. B. D. (Newcastle) is anxious to preserve his surplus eggs, nd wishes to know whether it is advisable to remove the ockerels from the pen before doing so. Yes, it is advisable to lo so, as infertile eggs can be much better preserved than those vhich are fertile; they keep much better. This was known to he Romans even 2,000 years ago, and it seems that we are nly awaking now to the fact. In answer to his further question. Many of our members have written stating that they ave failed entirely in endeavouring to preserve ducks' eggs. Why that should be I cannot say. My correspondent could try t if he wishes to It is possible they would be better in lime han in water-glass

"Enquire Within" (Newbold Moor) wishes to know if I can ive him any information on a good publication, or guide to Post-Mortems of Disease of Poultry. He has in mind something which would give the ordinary poultry-keeper some idea of how he different organs of a hen should appear under normal conlitions, and what abnormal features they would take on, as a result of any of the most common causes of death. I am sorry I cannot help him in this matter. The best books on the subject would be probably "Diseases of Poultry," by Pearl, Surface and Curtis, published by Macmillan and Co., and O'Charnock Bradley's "Structure of the Fowl," published by A. and C. Black.

A. R. (Berwick) sends a sample of dry chick feed at 25s. per cwt.; an extravagant price. It contains hemp, wheat, maize, broken rice, meat, and a few split groats. It is not such a good sample as the one the S.P.B.A. are offering at 19s. cwt., and one would like to see more groats and wheat in it. The second sample at 19s. is a wretched one; quite unfit to feed to chicks. It consists principally of wheat, maize, and a little wheat parings, and a good deal of cockle shell. The No. 1 is just a fair sample at a high price. No. 2 is too bad to use. In answer to his second question. If my correspondent mates the Black Leghorn cockerel to Light Sussex pullets he will not be able to tell the sex of the chicks when hatched. The majority of them will be black.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

Midwinter, Mrs. E. C., "Waltair," Greenham Common, near Newbury.
Fergusson, Mrs. M. I., Westwood House, Beverley, E. Yorks.
Neal, G. A., 146, Willow Street, Leicester.
Harrison, F., 1, Summerfield Road, Todmorden.
Hawkins, Miss E., Point House, Maybury Hill. Woking.
Pratt, H. R. E., Lieut.-Col., D.S.O., Bon Air ,Windlesham, Surrey.
Partridge, R., Shooting Box, Dunsford, near Exeter, Devon.
Paget, B. L., Prospect P.F., Tewcott, Bicester, Oxon.
Kneebone, W. J., Treskewes Stithians, Perranwell, Cornwall.
St. John, Major, Slinfold Lodge, Slinfold.
Sankey, S., The Terrace, Mossend, Lanarkshire, Scotland.
Trotter, Miss F., Readstown, Laracor, Trim, Co. Meath, Ireland.
Webster, W. (junr.), Briarbank, Methlick, Aberdeen.
Harden, Miss F., Rhydwen, Walwen, Bagillt, N. Wales.
Hogben, E. H., Thanet Flour Mills, Ramsgate.
Aspland, A. Lees, "Kalgan," Welwyn, Herts.
Coupland, W., Wayside P.F., Boston Road, Heckington, Lincs.
Cook, H., Crew Barn Farm, Rakehead, Stacksteads.
Hilton, Capt. J. Aston, The Garth, St. Peter's, Jersey, C.I.
Nicholls, Wm., Sunny Cottage, Ringwould, Kent.
Oliver, Mrs. J. W., Winkenhurst, Hellingly, Sussex.
Hurst, R., Wittering Court, Thundersley, Essex.
Sisson, D., Clematis Villa, 15, Church Street, Ilkeston, Derby.
Tolley, F. N., Hillside, Upottery, Honiton, Devon.
Leader, Miss E. E., Mascalls, Ewhurst, Guildford.
Scott, H. N. F., The Poultry F., Rusthall House, Langton Road, Tunbridge Wells.
Higdon, T. J., 57, Gordon Road ,South Woodford, E.18.
Campbell, L. G. Comm., D.S.O., R.N., Byways P.F., Staplehurst, Kent.
Goold, E. M., Alkerton House, New Banbury, Oxon.
Pearson, Mrs. A., Harden Moss Farm, Holmbridge, near Holmfirth, Yorks.
Cave, G. J., Bishop's Court, Shapwick, Blandford, Dorset.
Marston, C. W., New Inn, Muddiford, Barnstaple, N. Devon.
Nicholls, W. M., Vale View Nursery, Clitheroe.
Lewis, A., Red Cross, Silverton, Devon.

HARPER-ADAMS' AGRICULTURAL COLLEGE, NEWPORT, SALOP POULTRY LAYING TRIALS, 1925/26.

REPORT FOR THE FOURTH PERIOD.

The termination on 20th February of the fourth period brings the Trials near to the close of an unusually severe winter period. It reflects considerable credit on the management that the birds should have passed through several severe months with so few casualties, the death roll being only a fraction over one per cent. While moulting has in many cases retarded production, it does not appear to have done so to any unusual extent, the average for the Small Flock Sections being over 313 eggs per pen for the four months, which is slightly better than last year's average of 311 eggs per pen. This gives an individual average of over 52 eggs per bird. The Championship Sections also show an improvement on the previous year, with an average of nearly 60 eggs per bird in the Light Breed Section and 63 eggs per bird in the Heavy Breed Section. Last year's figures for these Sections were 54.6 and 62.5 per bird respectively.

There have not been many changes in the leading positions during the fourth month. It is worth remark that Mr. Edgar Watson's Championship Pen of Wyandottes continues to keep well ahead of all others, and now has the excellent average of over 79 eggs per bird for the fourth months.

The following are the leading positions:—

SUMMARY OF THE LEADING PENS.

CHAMPIONSHIP TRIALS.

Section 1—Light Breeds.—Tom Barron, Catforth (W.L.), 721 eggs; Frank Snowden, Keighley (W.L.), 706, G. B. Metcalfe, Lechlade (W.L.), 696; F. A. Welch, Cheltenham (W.L.), 662.

Section 2.—Heavy Breeds.—E. Watson, Colne (W.W.), 797 eggs; G. B. Metcalfe, Lechlade (R.I.R.), 692; Tom Barron, Catforth (W.W.), 704; Capt. D. W. Gunston, M.P., Reading (W.W.), 672.

SMALL FLOCK TRIALS.

Section 1—White Leghorns.—Miss Helen Baylis, Stratford-on-Avon, 432 eggs; Capt. J. Thompson, Shrewsbury, 407; Lt.-Col. A. G. Eden, Bracken Cranswick, 399; The Worcestershire P. Farm, Tardebigge, 403; G. Keith Simmons, Honiton, 395.

Section 2—White Wyandottes.—Dr. A. E. Harrisson, Daventry, 489 eggs; G. Keith Simmons, Honiton, 473; F. Snowden, Keighley, 448; C. E. D. W. Freeman, Anglesey, 442; S. & T. Greenall, Grantham, 432.

Section 3—Rhode Island Reds.—C.W.S., Ltd., Manchester, 445 eggs; Miss C. E. Roads, Bletchley, 412; R. Green, Preston, 415; W. Mayor, Leyland, 398; Tom Carter, Abram, Lancs., 380.

Section 4—Light Sussex.—F. R. Welch, Bewdley, 458; F. Rossall Sandford, Shrewsbury, 415; A. Hughes, Malpas, 422; E. Clough, Lyme Regis, 418; Capt. A. A. Plimpton, Beverley, 406.

Section 5—Black Leghorns.—W. A. Lansley, Whitchurch, 382 eggs; R. A. Fawssett, New Radnor, 369; R. Rodwell, Nelson, 347; S. Street-Porter, Ely, 330.

Section 6—Any Other Light Breed.—W. Hamnett, Blackpool (An.), 419 eggs; H. Lynden Lemon, Devizes (Bl. Br.), 376; Dr. R. B. Reed, Colchester (An.), 354; Sir Charles McGrigor, St. Germans (Wh. Br.), 347.

Section 7—Any Other Heavy Breed.—Miss P. Mills, Bishop's Castle (B. Rks.), 461 eggs; Capt. A. A. Plimpton, Beverley (B. Rks.), 442; Mrs. Drew, Basingstoke (B. Rks.), 397; F. R. Welch, Bewdley (B. Rks.), 389.

SINGLE BIRD TRIALS.

Section 1—White Leghorns.—F. G. Mansell, Aldridge, 86 eggs; Rev. H. W. Bush, Bath, 83: Chivers & Sons, Ltd., Histon, 81.

Section 2—White Wyandottes.—S. & T. Greenall, Grantham, 91 eggs; Frank Snowden, Keighley, 92; Tom Barron, Catforth, 89.

Section 3—Any Other Light Breed.—K. A. Crawford, Dilham (Wh. Br.), 78 eggs. W. H. A. Heald, Hellingly (Bl. L.), 65.

Section 4—Any Other Heavy Breed.—A. Hughes, Malpas (L.S.), 103 eggs; Miss M. Lawrence, Glos. (R.I.R.), 94; Tom Barron, Catforth (R.I.R.), 86.

DUCK SECTION.

S. E. S. Burnett, Arbroath (K.C.), 496 eggs; R. A. and A. M. Johnson, Chalford (W.R.), 491; Wilson Beattie, Rothersthorpe (K.C.), 479; H. S. Godsmark, Ashford (W.R.), 468; O. C. Brown, Appleby, Lincs. (K.C.), 465.

BARROW AND DISTRICT UTILITY POULTRY SOCIETY EGG-LAYING COMPETITION.

Organised by the Barrow-in-Furness and District Utility Poultry Society, and managed by Mr. G. B. Tootall, Thorncliffe Poultry Farm, the twenty weeks' single bird laying test has just closed. There have been four classes open to all in the radius, and two for small breeders owning not more than 50 pullets. To encourage small breeders, they are eligible to win open class prizes as well as their own, for the one entry fee. The entries have been more numerous, and the standard of excellence of the winners nearly 100 points higher than last year. A feature of this year's competition is the success of small breeders in open classes, showing that "blood will tell" for a small breeder as well as a large breeder, and so encourage small breeders to keep only birds of high fecund parentage. The results show a close race for the G. B. Tootall challenge cup between large and small breeders

Monthly certificate winners for the final period of four weeks: —Class 1: J. Graham (W.W.), 204 points. Class 2: J. Graham (W.L.), 200 points. Class 3: Wm. Haworth (R.I.R.), 190 points. Class 4: Hon. M. Cross (An.), 210 points. Class 5: J. Graham (W.W.), 204 points. Class 6: J. Graham (W.L.), 200 points.

The returns for the full period of twenty weeks are as follows:—

OPEN CLASSES

Class 1.—1, J. Graham, gold medal (W.W.), 954 points; 2, J. Graham, bronze medal (W.W.), 888 points; 3, Hon. M. Cross, certificate (W.W.), 820 points.

Class 2.—1, J. J. Hardy, gold medal (W.L.), 688 points; 2, J. Graham, bronze medal (W.L.), 660 points; 3, A. Fawcett, certificate (W.L.), 646 points.

Class 3.—1, Wm. Haworth, gold medal (R.I.R.), 976 points; 2, Hon. M. Cross, bronze medal (L.S.), 720 points;. 3, T. B. Grice, certificate (L.S.), 674 points.

Class 4.—1, Hon. M. Cross, gold medal (An.), 944 points; 2, Myles Newton, bronze medal (B.L.), 570 points; 3, P. N. Davies, certificate (B.L.), 548 points.

SMALL BREEDERS' CLASSES.

Class 5.—1, J. Graham, gold medal (W.W.), 954 points; 2, J. Graham, bronze medal (W.W.), 888 points; 3, Miss Mary Newton, certificate (W.W.), 512 points.

Class 6.—1, J. J Hardy, gold medal (W.L.), 688 points. 2, J. J. Graham, bronze medal (W.W.), 660 points; 3, Miss Mary Newton, certificate (W.L.), 572 points.

Champion Gold Medal and the G. B. Tootall Challenge Cup for best in Test.—Wm Haworth (R.I.R.), 976 points.

Champion Gold Medal for Small Breeders.—J. Graham (W.W.), 954 points.

The J. Graham Challenge Bowl for those owning not more than 25 fowls.—P. W. Davies (B.L.), 548 points.

Silver Medal, given by O.E. Pheasant Fanciers for best record by O.E. Pheasant.—Myles Newton, 330 points.

LANCASHIRE FEDERATION OF UTILITY POULTRY SOCIETIES.

The quarterly meeting was held in the Master Builders' Rooms, Mount Street, Preston, on Saturday, March 20th, 1926. Dr. J. E. Helm (Chairman) occupied the chair.

An application had been received from the newly-formed Society (New Moston) for affiliation, and they were accepted.

A letter was read from the Tyldesley Society, stating they could not see their way to remain members of the Federation. Mr. Hamnett promised to go to Tyldesley, and see if he could get them to remain affiliated.

A letter was read from the Secretary of the N.P.C. respecting the posters, "Eat More Eggs" for distribution to shopkeepers. He wished to know which of the designs we had decided upon, and then he could get estimates for same. The delegates then voted on a design, and the Secretary was instructed to write Mr. Brown.

The Secretary reported he had interviewed the Secretary of the Royal Lancashire Agricultural Show, and a suitable stand could be placed at our disposal at a small charge.

It was proposed to have this stand, as a Federation Stand, and to make it a meeting place for all the affiliated societies' members. This was carried.

National Poultry Council.—Mr. Hamnett gave a grief report of the Income Tax case, re Mr. Nuttall, which had been won in High Court.

Marketing Conference.—Mr. Hamnett gave a report of the meeting held in London, which was supported by Mr. Barron. After a long discussion it was thought that the following weights would be most suitable for eggs when grading:—Up to 1⅞ozs. to be smalls, 1⅞ozs. to 2⅛ozs. standards, and over 2⅛ozs. specials, less 1-16th in the pullet season.

Standards Committee.—Mr. Whalley reported on the Standards Committee Meeting, which was held in London, he said he attended, together with Mr. Wrennall. and he thought everything was going on satisfactory, as most of the suggested weights did not vary much from the Federation Standard. Mr. Thompson moved and Mr Ashworth seconded that the same two delegates attend the meeting on April 8th.

The Secretary was instructed to write the Poultry Club Secretary, asking him to call the meeting for 12.30, so as to enable our delegates to be in time.

The following resolution, to be sent to the N.U.P.S., was carried:—"It is the unanimous wish of the Lancashire Federation that the N.U.P.S. should join other poultry organisations, in the formation of a Utility Poultry Standard."

Sub-Committee Reports.—The Educational and Propaganda Committee suggested the Secretary should again write the Manchester Educational Authorities, respecting the use of a schoolroom for the Manchester Society, for their shows. They were drafting up a leaflet showing the aims and objects of the federation.

Finance.—Mr. J. P. Willacy reported on behalf of this committee. He was sorry to say the bank account was very low, and he appealed to the societies to forward their subscriptions as early as possible. It was decided to forward £2 2s. subscription to the Territorial Riding School, at Bolton, for the use of hall for our last show.

Laying Test.—Mr. G. B. Tootall reported on behalf of the committee several deaths had occurred during the month, but otherwise everything was proceeding satisfactory.

Show.—Mr. H. Hayes, the Show Secretary, suggested that every affiliated society should form a small committee to obtain entries and advertisements for catalogues and schedules, so as to make the 1926 show a financial success.

Ministry of Agriculture and Fisheries. Stock Poultry Laying Records.—A long discussion took place on the draft scheme as submitted by the Ministry. It was unanimously decided not to support this scheme which Lancashire poultry-keepers strongly object to, but to support another scheme which had been submitted by the Federation to the N.P.C.

POST-MORTEMS.

G. H. H. The post-mortem examination of the six chicken showed no actual disease lesions, but the food was not bein digested at all, the intestines being full up of coarse bran an cracked maize and grain, which the gizzard had failed t pulverise, because of the absence of any form of grit. The unabsorbed yolk is the effect, not the cause, except when the yol becomes decomposed or remains as a foreign body in the bod cavity to cause trouble later on, and non-absorption may be du to improper feeding, or to disease, such as Coccidiosis, B.W.D, Aspergillosis, etc. in fact anything that may upset the econom of the body. The yolk sac should be withdrawn within th body through the umbilicus by the 20th day, and be entirel within the body, and the umbilicus closed by the 21st, an chicks which hatch with an unclosed umbilicus are not likely t live.

W. H. M. In reply to your query, there were no lesions suggestive of B.W.D. in either of the lots of chicks examined, bu the spores and mycelium of the Aspergillus fungus was definitel determined with the microscope. I could not definitely say however, without first making a bacteriological examination that any of these chicks were not affected with B.W.D., i addition to the Aspergillus, as these two diseases are frequentl found in common, but B.W.D. may be present without an diagnostic lesions, and in those cases a bacteriological examination is absolutely essential to establish it as the cause of death. A positive reaction to the agglutination test is proof positive that the bird is infected with the bacillus pullorum, and is either suffering from the disease, i.e., young chicks, or is a "carrier" (adults). (2) Short of the destruction of all birds in a hatch that has become infected with B.W.D., and the destruction of all "carriers," the blood test is at present the only practical method of control. (3) There are no specific symptoms of B.W.D., many birds being found dead that have shown none whatever, others dying after a short period of mopiness, with or without diarrhoea, ruffled feathers, weakness, and the usual signs of a desperately sick or dying bird.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

LIVERPOOL AND DISTRICT BRANCH.

The March Monthly Meeting and Egg Show was held at the headquarters of the Branch, The Albany Room, Palatine Cafe, Lord Street, Liverpool, on Saturday evening, 13th March, 1926, at 7.0 p.m. Mrs. E. Douglas Kendall in the chair.

Mrs. Newman gave a delightful and instructive paper on "The Care of the Growing Stock." Her paper the audience appreciated, because it dealt with all the stages from the baby chick to the laying stage. Not many questions were put to Mrs. Newman, because her paper covered each detail minutely. Mrs. Newman judged a nice selection of hatching eggs, and her instructions on "How to judge eggs for incubation" kept the audience spellbound. I am sure if members of the S.P.B.A. would ask Mrs. Newman's advice re selecting the eggs for their incubators Mr. Newman would not have such a quantity of "dud eggs' to give his advice upon.

Mr. Newman accompanied Mrs. Newman, but he said it was a "holiday," but the audience thought he said "busman's holiday," so hence he got a lot of questions fired at him, which he aptly replied to.

A vote of thanks was proposed by Mr. Connolly, and seconded by Mr. Robt. Thomas, to Mr. and Mrs. Newman, and was carried unanimously.

A very enjoyable evening terminated with a vote of thanks to the Chair, Mrs. E. Douglas Kendall.

Egg Show.—1st and 2nd certificate, White Hatching Eggs: Mr. Robert Thomas. 1st and 2nd certificate, Brown or Tinted Hatching Eggs: Mr. Isaac Munday. 2nd certificate, Brown or Tinted Hatching Eggs: Mr. Robert Thomas.

R. J. THOMAS, Hon. Sec.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, MARCH 26th, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is moderate supplies, and prices have advanced on the week at London and Liverpool, the average quotation being 11s. 10d. per cwt., as compared with 11s. 8d. last week. Imported wheats generally sell at slightly higher figures. Home-grown barley is freely offered and meets a quiet trade at late rates, feeding descriptions averaging 7s. 5d. per cwt. Foreign barley generally attracts little attention, but prices are practically unchanged on the week. English oats are in moderate demand at recent quotations, except at Hull, where short supplies have caused prices to advance 3d. per cwt. Foreign oats are in rather better request, and on the whole have a dearer tendency. Good offerings of maize meet a variable trade, Argentine averaging 7s. 3d. per cwt. Coarse middlings generally sell at recent prices, while bran at Liverpool and Hull is reduced 5s. and 10s. per ton, respectively. British bran now averages about £6 10s., and coarse middlings £6 18s. per ton. Meals mostly make late rates, but maize products are slightly dearer in some instances. Oil cakes generally experience a slow trade, and at London both linseed and cotton seed cake are quoted at lower prices.

MILLERS' OFFALS.—Bran (British): Bristol, £6 15s; Hull, £6 7s; Liverpool, £6 15s; London, £6 5s. Broad Bran: Hull, £7 17s; London, £7 15s. Middlings—Fine (Imported): London, £7 12s; Coarse (British): Bristol, £7 7s; Hull, £7; Liverpool, £7; London, £6 7s. Pollards (Imported): Bristol, £6; Hull, £5 10s; Liverpool, £5 7s; London, £5 17s. Rice Bran: Bristol, £6 10s; Liverpool, £6 10s; London, £6. MEAL.—Barley Meal: Bristol, £9; Hull, £9; London, £9 7s. Maize Meal: Bristol, £9 5s; Hull, £8 5s; Liverpool, £8 12s; London, £8 10s. Maize Meal (S. African): Bristol, £8 5s; Hull, £7 10s; Liverpool, £7 12s; London, £7 2s. Maize Germ Meal: Hull, £8; London, £7 10s. Maize Gluten Feed: Bristol, £10 5s; London, £9 5s. Maize Cooked Flaked: Hull, £10; Liverpool, £10; London, £10 5s. Locust bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9 12s. Bean Meal: Bristol, £13; Hull, £11 7s; London, £12 5s. Fish Meal: Bristol, £20 10s; Hull, £19 10s; Liverpool, £18 10s; London, £18.

EGGS AND DEAD POULTRY.

Eggs are plentiful, but the recent decline is now more or less checked, and prices are fairly steady. There is an improved inquiry at hardening rates for good quality chickens and ducklings.

Week-end Prices—Eggs (per 120): British, 12s 6d, 11s 3d; Irish, 12s 6d, 12s 3d; Danish (18 lb.), 16s 0d, 15s 6d; Danish (15½ lb.), 12s 0d; Dutch, brown, 13s 9d, 13s 3d; Dutch, mixed, 12s 9d, 12s 3d; French (Normandy brown), 14s 0d, 13s 6d; French (Normandy mixed), 12s 6d, 11s 9d; Belgian, 12s 3d, 11s 9d; Italian, 12s 0d, 11s 6d; Egyptian, 8s 6d, 8s 3d; Polish, 9s 3d, 9s 0d.

Dead Poultry (per lb.): Fowls—Surrey, 2s 0d, 1s 8d; Irish, 1s 6d, 1s 4d; Others, 1s 8d, 1s 3d. Ducks, 2s 1d, 1s 8d. Geese, 1s 3d, 1s 1d.

EGGS.

Per Doz.—Ashford: First, 1s 4½d; Second, 1s 3d. Birmingham: First, 1s 3d; Second, 1s 2½d. Bridgwater: First, 1s 4d; Second, 1s 2d. Chelmsford: First, 1s 4½d; Second, 1s 2½d. Colchester: 1s 4½d; Second, 1s 2½d. Doncaster: First, 1s 5d; Second, 1s 4d. Dorchester: First, 1s 2¾d; Second, 1s 2¼d. Exeter: First, 1s 1d. Hereford: First, 1s 2d; Second, 1s 0d. King's Lynn: First, 1s 3d; Second, 1s 1d. Llandilo: First, 1s 2d; Second, 1s 1d. Mold: First, 1s 3d; Second, 1s 0d. Montgomery: First, 1s 0d. Newport (Mon.): First, 1s 2d; Second, 1s 1d. Norwich: First, 1s 3d; Second, 1s 1d. Oswestry: First, 1s 3d; Second, 1s 2d. Penzance: First, 1s 0d: Second, 11d. Saffron Walden: First, 1s 3½d; Second, 1s 2½d. St. Ives (Hunts): First, 1s 3d; Second, 1s 2d. Salisbury: First, 1s 2½d; Second, 1s 1½d. Skipton: First, 1s 3d. Swindon: First, 1s 2½d; Second, 1s 1½d. Truro: First, 11d. Welshpool: First, 1s 2d; Second, 1s 0d. *Carlilse: First, 1s 4d; Second, 1s 2d. *Derby: First, 1s 3d. Ipswich: First, 1s 4d; Second, 1s 0d. *Lincoln: First, 1s 3d. *Shrewsbury: First, 1s 2d; Second, 1s 0d. *York: First, 1s 5d; Second, 1s 4d.

FOWLS.

Per lb.—Birmingham: 1s 6d; Second, 10d. Doncaster: First, †6s 0d; Second, †5s 0d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 6d. Llandilo: First, 1s 8d: Second, 1s 4d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First, 1s 5d. Welshpool: First, 1s 7d; Second, 1s 5d. *Derby: First, †6s 3d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d. *York: First, †6s 0d; Second, †5s 6d.

(Continued at Foot of Next Column.)

"Eggs."
The Official Organ of the Scientific Poultry Breeders' Association.
Wednesday, March 31st, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscription to "EGGS," 12s. 8d. per annum; 6s. 4d. for six months, 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick, Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

DUCKS.

Per lb.—Exeter: First, 1s 4d; Second, 1s 2d. *Ipswich: First, 1s 4d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

Classified Advertisements.

(PREPAID RATES.)

1d. per word—minimum charge, 1s. 0d.; 13 insertions at price of 12. Bold headlines inserted at an extra charge per insertion according to size as below:—

DAY-OLD CHICKS	per line, extra 9d.
DAY-OLD CHICKS,	,, ,, 1s.
DAY-OLD CHICKS	,, ,, 1/6

The number of letters, punctuations and spaces between words should be totalled, when the following table will be of assistance:—

9d. size allows for Thirty-one to one line.
1/- size allows for Twenty-seven to one line.
1/6 size allows for Twenty-one to one line.

When the remittance does not cover the size selected, a smaller corresponding size type will be used.

Insertion constitutes acknowledgment of remittance in the case of pre-paid advertisements. For a series of 13 insertions or more, a receipt is forwarded.

N.B.—Advertisements, unless accompanied by correct amount, will not be inserted.

Advertisements must be distinctly marked with the Heading under which they are to appear.

Advertisements must be written on a separate sheet of paper, and one side of the paper only.

Name and Address to be counted. In the case of a Box Number being used, the words, "Box." "Eggs," 94, Farncombe Street, London, S.E.16, to be counted as eight words, i.e., making a total extra charge of 1s. 8d. (1s. for Box; 8d. for address) per insertion.

Advertisements must reach this office
FIRST POST FRIDAYS
for insertion in the following Wednesday's issue Those received after this time will be inserted in the next issue.

PLEASE WRITE CLEARLY, and TO AVOID MISPRINTING OF STRAINS, NAMES AND ADDRESSES. THESE SHOULD BE WRITTEN IN PRINTED CHARACTERS.

Displayed Advertisements.

Ordinary Page, £8 15s. 6d.; Half Page, £4 7s. 9d.; Quarter Page, £2 4s. 0d.; One Column, £2 18s. 6d., Half Column, £1 9s. 3d, Quarter Column, 14s. 9d. One inch, 6s. 6d. Special Inside Pages, 25 per cent. on above rates. Cover and other Special Positions by arrangement. Discounts for Series. Full Scale of Advertising Rates on application.

Advertisements, addressed to Mr. S. H. BURLES, "EGGS," 94, FARNCOMBE STREET, LONDON, S.E.16, MUST REACH US BY FIRST POST FRIDAY MORNINGS, for insertion in following issue. Those received later will be inserted in the next issue.

A DEPOSIT SYSTEM has been adopted for advertisements, and Advertisers are asked to make full use of same. When remitting direct to the Editor on deposit, the full amount of purchase money should be sent, and six penny stamps extra to cover cost of acknowledgment of same Cheques should be made payable to the Editor and sent direct to The Beeches, Rudgwick, Sussex.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. — R.I. Reds (first pens headed). Cockerels (direct Boucher), Runner and Khaki-Campbells. Eggs, Chicks, and Stock Birds. List free. Satisfaction insisted on.

Hobson's First Prize Utility Minorcas; eggs, 10s. 6d. 15 — Hobson, Wrentnal House, Pulverbatch, Shrewsbury.

Barnevelder Eggs (Middleman and Schimmel), Barred Rocks (Jackson), Buff Rocks (Taylor and Slater); 5s. 6d. dozen, carriage paid; boxes returned.—Beattie, Braemore, Mauchline, Ayrshire.

Anconas, Black, Brown and White Leghorns, Khaki-Campbell Ducks; all best strains; 4s. 6d. dozen; carriage paid. — Dixon, Kempe's Corner, Wye, Kent.

Hatching Eggs; 7s. 6d., 15; from carefully selected trap-nested Black Leghorns, Red Sussex.—Mrs. Coldwell, Spring Grove, Milverton, Somerset.

Schimmell's Barnevelders; specially mated; sound stock; no fancy prices; 6s. 6d. dozen.—Waterworth, M.S.P.B.A., Duffield, Selby, Yorks.

Eggs, 7s. 6d. doz.; 27s. 6d., 50; carriage paid; from trap-nested Utility Light Sussex, the only breed kept, on unlimited free range on Yorkshire Wolds.—Jack Spilman, Gardham, Beverley, Yorkshire.

Eggs for hatching; Houdan; Utility Strain; 6s. 6d. per 15; no replacements.—MacKnight, Station House, Wall Grange, Cheddleton.

Reliable Hatchable Eggs. R.I.R.'s, Bostock Smith; W. Wyandotte, Rodwell's; Black and White Leghorns, F. Snowden's; K.-C. Ducks, O. Brown; Black Leghorns, 3rd Wilts Test; White Leghorns, 1st Single Bird, end fourth month, 1926; Gold Medal, Nine Certificates, and Ribbons, 1925 Eggs, 5s., 15; 27s. 6d., 100. Chicks, 78s., 100. — Edward Oatley, Manor Farm, West Ashton, Trowbridge.

White Leghorn. Large Egg Strain, from second season hens, Frank Snowden, mated to Vigorous Cockerels; Dowden's Blood-Tested Stock; 5s., doz.; 35s., 100.—Milsted, Birling Cottage, Powder Mill Lane, Southborough.

FERTILE EGGS.
White Leghorn Eggs, over 2oz., 500 per week; April, 40s. per 100; May, 30s. per 100; no replacements; carriage paid. — Jackson, S.P.B.A., New Park Road, Cranleigh.

WHITE LEGHORN EGGS FOR HATCHING.

None under 2ozs. 85 per cent. fertility guaranteed; Hanson, Bennet and Pike strains; mated to cocks and cockerels direct from the Misses Ransford, Pens VI. to X. All breeding stock on virgin soil. Inspection invited; 6s. a sitting, 35s. per 100; carriage paid.—Apply, Instow Poultry Farm, Langton Matravers, Dorset.

GOLD MEDAL STRAIN.

White Leghorns, winners of National Laying Test Section 2, 1925. Booking Sittings of Eggs; 10s. dozen.—Bingley, Balsham Manor Farm, Cambridge.

WHITE LEGHORN EGGS

For hatching. From hens with good winter records: mated to cockerel, from F. Snowden's "Daily Mail" winners; 5s. per 14: 30s. per 100; no replacements. — P. Clark, Rowmill Poultry Farm, East Lane, Scunthorpe, Lincs.

EGGS.

FOR SALE.

Buff Orpington Duck Eggs, Cook's pens direct; 4s. 6d. dozen: unfertiles placed.—Seacroft Poultry Farm, Skegn Lincolnshire.

1,000ft. Altitude—yet Utility Cup Gold Medal Winners (Registered Pe and records well over 200 for all breede White Leghorn, Black Leghorn, R.I. Re and Anconas. Built up from the m consistent laying competitors' blood p curable. Lists free.—Fentem, Chapel-en Frith.

Eggs for hatching. W. Wyandott Light Sussex, R.I. Reds; 6s. sitting; per 100. — F. B. Jessett, Drayton P Havant Road, Cosham, Hants.

Buff Rock Eggs; Carter-Hunter dire 7s. 6d. dozen. — Miss Thomas, Newha Helston.

Free range stock. Fertile Sittings R.I.R., 4s. 6d.; Australorps x R.I.R., 6d; Indian Game, 7s. 6d. per 15, c.p., u.n —Wortley, The Wilderness, Fransham, N folk.

P. B. Adams, East Franklyns Poult Farm, Hayward's Heath. Black Leghorn Rhode Island Red, Light and Red Susse 10s. per sitting.

Eggs for Hatching. Rhode Islands Re (Kitchen-Measures); 6s. per dozen; 22s. 6 per 50, carriage paid; fertility very high from stock tested by Board of Agricultur and certified free from B.W.D.—Har Nelson, Sands House Poultry Farn Durham.

Barnevelder Sittings; large brown egg from second hens; Schimmel's strain; 7 6d. per 15. Carriage paid.—Banting, Heat field Poultry Farm, King's Langley, Hert

Ancona Eggs; Exhibition Utility; 220-eg strain; winners, firsts, Redruth, Tenbur Wells, Bristol, Neath; 7s. 6d. sitting.—Ha Orielton Terrace, Pembroke.

LIGHT SUSSEX, 35s. PER 100.
Eggs from large L2 birds, mated to Coc erels, from 235 2¼oz. egg hen; 21s., 50; 6 6d., 12, delivered.
ORWELL P.F., LEVINGTON, IPSWICH.

2¼oz. Super-Grade **BUFF ROCK EGGS**—2¼o Unprecedented Offer! Requirements fu filled. I am offering eggs from my specia winning Utility-Exhibition Pen (Cooper's) 6s. 6d. doz., U.R.; worth a guinea. — Hornby, M.N.U.P.S., 35, Noster Terrace Beeston, Leeds.

HATCHING EGGS FROM THE HIGHLANDS OF SCOTLAND.
Rhode Island Red and White Leghorn Individually bred from trap-nested stock Free from Tuberculosis and B.W.D., an reared in the Aberdeenshire hills at a altitude of over 600 feet. Sittings of 15 no replacements, 8s., carriage paid. — W Shepherd, Campfield, Glassel, Aberdeenshire.

A HEALTHY PROLIFIC STRAIN.
Roland Garrett, winner Bronze Medal for Black Leghorns, National Test, 1924-5, offer Sittings from 5s. — Lea Poultry Farm Wheathampstead, Hertfordshire.

REDUCTION IN PRICE
OF HATCHING EGGS.
Pedigree Trap-Nested White Wyandotte assorted pens No. 1, 2 and 3, and including a proportion from our Special Registered Pens. Prompt delivery; carriage paid. Prices without replacement:
6s. for 15 Eggs. 35s. per 100.
BENNET and PIKE, ASHEY, I.O.W.

MR. AND MRS. STREATFEILD,

Sittings, Rhode Island Reds, from 4s. Khaki-Campbell Ducks, from 5s.; carriage paid. List post free. — Pilton, Shepton Mallet, Somerset.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, APRIL 7th, 1926.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

THE WELLINGHAM EXPERIMENTS—INTENSIVE REARING OF TABLE POULTRY.

The following is the second report which I have received from Miss Malcolm, and our readers will agree that it is most interesting.

One interesting point is that the formula used is exactly the same as last year, except that the dried milk was replaced with an equal quantity of fish meal, and in this case one feed of wet mash was given every day.

The most remarkable thing is that the average weights for the six weeks tally almost exactly with those of the corresponding period last year.

It is a great tribute to intensive rearing, and also to the formula used, that there should be no mortality :—

SECOND REPORT OF EXPERIMENT ON INTENSIVE REARING OF TABLE POULTRY AT WELLINGHAM, TUESDAY, MARCH 23rd, 1926.

The 200 birds in this experiment are now six weeks old. There have been no losses at all. At to-day's weighing, the total weight of the 200 birds was 78 lbs. 4 ozs. The average weight was therefore 6.25 ozs., the average increase on the fortnight being 6.26 ozs. The average weight of the 20 heaviest birds is 16.7 ozs.; the average weight of the 20 lightest (pullets) being 8.1 ozs.

It is proposed at the end of the experiment to give an exact account of the food consumed between each weighing, and of the price of the same.

The birds were cold brooded at the end of the 5th week, the lamp being taken out of the house, and a slatted platform being fixed on the perch board stands. A little hay was spread over this, and sacks were drawn over the chicks' backs. It was found necessary to continue covering chicks on account of the north-east wind, but now that the weather has become milder no covers are being used, the birds perching on the slatted platforms.

The large majority of the birds have feathered well, only some of the smaller ones being backward in this respect. The birds are extremely active and lively, and so far there has not been a single case of leg weakness or sickness of any sort.

B. MALCOLM.

YEAR BOOKS.

"FEATHERED WORLD."

I have received from the Editor a copy of the "Feathered World Year Book" for 1926. This is the fifteenth year of publication.

It contains all the well-known features which made the book so popular in previous years, and will be eagerly read as heretofore, and what more can one say?

There is a review of the breeds, and excellent illustrations by those who are competent to write upon them.

The book contains a vast amount of information which, although more particularly useful to the exhibitor than to the utilitarian, will be read with interest and advantage by both.

We can commend it to all our readers. It should find a place on the shelf of everyone engaged in the industry, whether for pleasure or profit.

THE POULTRY CLUB.

The "Poultry Club Year Book" is to hand, and it contains much that is of interest to the non-fancier.

The President, Mr. Lawrence Ardern, in a very interesting manner, writes on the Indian Game, while Capt. Brodie deals with the Barnevelder, and no one is better qualified to do so. One can heartily endorse his concluding remarks and the advice "not to set any eggs that are not dark brown and large, even if they come from a specially good-looking hen," and I would like to see his words :—

> "The better the cockerel that is produced from the mediocre egg, the more you will be tempted to use him, with the result that he will 'fix' the small pale-shelled egg in and so damage your strain"—

included in the Year Book of every specialist club whose particular variety has any pretensions for being classed as "utility."

Mr. W. W. Broomhead writes on Orpingtons, and there are many other articles on the various breeds, which will be found interesting to our readers.

Mr. Weir's article on the White Leghorn indicates in one line where the clash between the utility breeder and the fancier occurs. He says:—

> "To produce exhibition cockerels and exhibition pullets you must mate two separate pens. It is very seldom you can produce both sexes from the same pen to win classic shows."

COCKERELS AND LEG BANDS.

I want to draw readers' attention to the following extract taken from a letter received this morning, with regard to a very valuable cockerel:—

> "A short time ago I noticed that he had lost his ring, the ordinary celluloid band type, and concluded that he must have torn it off. Last week, however, I saw that he was limping and appeared to have something wrong with his right foot. I examined it thoroughly, but with the exception of a slight swelling could find nothing. It then occurred to me to look at the joint of the leg, and just above it, hidden by the feathers, I found the ring. It had eaten its way almost to the bone, and, of course, explained at once the cause of the limping."

A few weeks ago I was on a farm some few miles from here, and went into a breeding pen, and saw a cockerel limping, and I pointed out to the poultryman this was probably due to the ring being too tight, and when we caught the bird we found an aluminium ring had cut its way right through, almost to the bone. Of course, the bird had to be removed from the pen, and the wound dressed and treated.

We then went on to another breeding pen, there we saw another bird limping. He, too, was caught, and we again found the ring much too tight. No great harm had been done in this second case, and it was only a matter of days.

Might I suggest to some of our readers that a little closer observation in these matters be given. Of course, there is no intention of cruelty, but they should realise that a ring which will fit a cockerel in September is many sizes too small after Christmas, and may cause considerable suffering as well as make the bird useless for breeding purposes.

With young growing stock much unintentional suffering is caused by the unobservant breeder, who allows the rings which are put on in chickenhood to remain too long until they work right through into the leg, and often a good bird is ruined in this way.

THE HANTS COUNTY LAYING TRIALS.

Report for Fifth Period ending March 3rd. 1926.

Figures are Eggs and Points respectively.

Section "A."—A. F. C Holdaway (Pen 1, **W.L.**), 302, 2732; **Messrs.** F. and C. Brundett (W.L.), 239, 2706; **Capt** R. Mackenzie (W.L.), 281, 2495; **Mr.** A. F. C. Holdaway (Pen 2, W.L.), 282, 2422; **Mr. B. W. King** (W.L.), 230, **2060.** Capt. H. **Zambra (B.L.),** 223, **2014.**

Section "B."—Miss W. Clarke (R.I.R.), 327, 2873; **Mr. J. H. Thompson** (W.W.), 259, 2276; Mrs. C. Harper (R.I.R.), **252, 2019;** **Lord** Landsworth, Agricultural College (L.S.), **219.** 1924; **Mrs. T. P. Cordery** (W.W.), **207,** 1890; Capt. R. **McKenzie (W.W).** **194, 1810.**

Modern Poultry Feeding.

By TOM NEWMAN.

One of our members from Abernethy, Perthshire, writes:—

> "Will you please write an article on the feeding of maize to poultry of all ages in "Eggs" at your convenience, as the people in this district do not seem to believe much in its use? I would like to know exactly the method and quantities for feeding same."

I think a good deal has been written on the subject of Maize Feeding in the columns of "Eggs," and I cannot remember, since my connection with the poultry industry, a time when the advice not to feed maize has not been given.

In my early days it was said it caused liver disease, fatty degeneration of the heart, and sundry other evils, but some bold spirits have advised the use of a little maize during very cold weather.

Singularly enough my first contribution to the Poultry Press was on this very subject—a protest against the prejudice against maize feeding.

Let us go back to the time before the bred-to-lay hen, as we call her to-day, was known, when the average yield was about 80 eggs per bird, and the blessed word "utility" had not been coined. In those days we knew little about nutrition, and it is very little that we know now. There were no scratching sheds, the mash, if one was given, consisted of equal parts toppings, barley meal and potatoes, and whole maize or barley was given as the grain feed. From thence arose the advice not to overfeed and the prejudice against barley and maize, which exists to this day, but we must appreciate the difference between the producer and non-producer, and the hen in that day was most emphatically a non-producer. Consequently the tendency was to store in the body all the surplus of fats which would not be used in the manufacture of the yolks of eggs. Your heavy producer, on the contrary, gets rid of this surplus fat in the form of egg yolk, consequently it is not stored in the body, and you do not get liver disease, or fatty degeneration, as you would do in the case of the non-producer. Further, at the present day we balance our rations. We do not feed barley meal, potatoes, and whole maize, but we give the hen something which enables her to produce eggs in the form of protein foods, which were absent in the old days.

At the time of which I am writing, a comparatively small percentage of poultry breeders ever thought of giving their fowls meat or fish meal, or animal protein in any form.

Now we must appreciate that maize is lacking in protein and mineral matter, and for that reason it is not a good food to give in any quantity to the growing chick, and I would strongly advise my readers not to feed it in any quantity to young stock. A small quantity will be helpful, but if it is fed in excess, owing to its deficiencies in mineral matter and protein, it would tend to check the development of the young stock, because it will make the total ration deficient in both bone and muscle-forming ingredients. There is also the tendency to bring the pullets earlier into production, especially if they are precocious pullets. Neither would I feed it in any quantity to pullets which have just come through the moult, and have not yet begun to lay again, because there is always a period when a bird is not producing when there is a tendency to put on fat, and at such times it is unwise to feed maize in any quantity. For laying stock, however, from September onwards there is no cereal grain or meal to equal it. I have fed it the whole year round, and have never had any cause to regret it.

In my experience none of the cereal grains will equal it as an egg producer. It imparts an excellent colour to the yolk of egg. I have had no trouble when feeding with it, even in the hottest weather, and it has been fed with great success as a grain feed in the Australian Laying Competitions; it is much used in the United States and in South Africa.

Now we come to the charge that it tends to pile up internal fat. To some extent this is true, but it is only so in the case of the non-producer or with the poor layer. With a moderately good layer it is not the case, and with a heavy layer it is a most valuable food, as she draws so heavily on her bodily reserves of fat to form yolks. You will always get, in some flocks, an individual with a tendency to put on internal fat, and when this is the case of course there can be no worse food than maize, but one cannot treat the flock for the sake of the individual.

If you have an excess of carbonaceous foods in the diet, then of course maize will be a most mischievous food to use.

There are one or two points in connection with its use which are worth noting. At this season of the year, when shell-less eggs are most prevalent, it is not advisable to feed maize in any quantity to heavy-producing hens. I have also found it advisable, when cases of prolapsus occur, to stop the feeding of maize. I have found maize useful in bringing through pullets which have a tendency to hang in the moult.

With reference to its use as an egg producer during the winter months, the following is an extract from a letter which I have received from the Hon. Mrs. Maxwell, of Beauly, Scotland, in which she says:—

> "Thanks to your advice of giving kibbled maize in a trough, as a bed-time feed, to my pullets. I had, from 88 pullets, in October, 1,157 eggs, November 1,255, December 1,242, January 1,446, or an average of just a point under 65 eggs per bird, and really good eggs. That is a testimony to the feeding of maize during the winter months in addition to dry mash, which was always before the pullets."

It will be noted that besides the high average of 65 eggs per bird, Mrs. Maxwell remarks on the quality of the eggs.

May I here also say, in reply to many queries, that yellow maize is superior to white maize as a poultry food. It is stated to be very rich in the vitamin "A," which is not present in the white. The white, however, may be found useful in fattening, but my correspondent asks for the method and quantities for feeding maize.

In answer to her question, maize meal may form 20 per cent. of the mash. I would not advise more. As the grain, it should always be fed kibbled, because in this form it is more easily digested, and whole maize cannot be fed where scratching exercise is desirable.

During the winter months I would feed, as the grain feed, maize entirely. As I have said before, I have fed it with success the whole year through, but in any case it should form at least 50 per cent. of the grain feed, except during the flush months, when there is any tendency shown to produce double-yolked, thin-shelled or shell-less eggs, or when symptoms of layers' cramp betray themselves in the laying stock.

Maize does not cause these troubles; it is simply a condition which exists, and which would be accelerated by the use of maize.

For breeding stock I prefer to feed one-third yellow maize in the grain ration.

Maize Meal is not a good fattening food, because it has a tendency to pile on internal fat and not to produce good flesh, although a small percentage of white maize meal might be used with advantage.

THE GLOUCESTERSHIRE EGG-LAYING TEST.

Report for Month ended February 26th.

The following is the report on the Gloucestershire Laying Test (under the supervision of Mr. L. G. Price, County Instructor in Poultry Keeping) for the fifth month ended February 26th:—

During the month 5,247 eggs have been collected, against 4,025 the previous month, giving a total of 21,553 for the five months, and an average of 67.3 eggs per pullet. The method of scoring is the same as for last month.

The weather during the first part of the month was both wet and cold, changing for the latter part into ideal conditions for egg production. The health of the birds is very good, and there has been very little moulting.

The period for the competition in connection with the S.P.B.A. Challenge Cups ended on January 15th, and the cups have been won by Mr. T L. Davies for the best winter record—pen section—with 349 eggs (W.W.), and F. A. Welch—single bird section—with 71 eggs (R.I.R.).

Section A. (1). White Wyandotte (Professional).—G. W. H. Roberts, 2285 pts.; T L. Davies, 2247; H. W. Fowles, 1906; P. M. Hinton. 1892; H. Ludlow Hewitt, 1850; H. Bennett, 1602.

Section A. (2). A.O.V. Heavy Breed (Professional).—C. D. Pratt (Buff Rock), 2328 pts.; G. H. H. Simmons (Buff Rock), 2076; G B. Metcalfe (R.I.R.), 2023; D. K. Nuttall (R.I.R.), 1955; Miss M. Lawrence (Buff Rock), 1886; M. C Beale (R.I.R.). 1886.

Section A. (3). White Leghorn (Professional).—Sherborne Park P.F. (36), 1877 pts.; G. W. Roberts, 1876; Sherborne Park P.F. (1), 1796; Miss H. Baylis, 1770; J. L. Brown, 1742; Bibury P.F., 1640.

Section A. (4). A.O.V Light Breed. (Professional).—Capt. W. Anderson (An.), 1783 pts.. J. L. Brown (An.), 1571; F. W. Clifford (B.L.), 1464; Churchdown P.F. (An.), 1225; E. S. Coley (Ex. Leg), 1087.

(Continued at Foot of Column on Next Page).

Something about the Fancier.

By J. STEPHEN HICKS.

(Continued from Page 199.)

The majority of fanciers—though there are exceptions, of course—do not trapnest even their breeding stock, the most that is done in this direction being to keep tally, by means of toe-punching or rings, of the progeny of the various individual pens. It is readily admitted that this, on the face of things, seems a damaging confession, since one would imagine that, if any royal road to the production of winners could be found, it would only be by means of the most systematic tracing of individual pedigrees. Yet, curiously enough, it is nearly always the fancier breeder who relies on his instinct mainly, rather than any tabulated knowledge, who seems to be the one to produce the champions year after year.

Perhaps it is wisest not to try and delve too deeply into the reason why this should be so. No doubt if an admirable crichton eventuated, who, possessing all the intuition and knack of the born fancier, combines therewith the invaluable data and lessons learnable from the use of the trapnest, he will prove invincible in the show arena! Let us have it at that, then.

Turning to the subject of trade, there is no doubt that the successful breeder disposes of a good many sittings of eggs during the season, though this, for the fancier, ends a while earlier (say, when March is out) than in the case of the utility man. This, of course, because in the main there is not sufficient time for late chicks to mature before the show season is over. To a small extent fanciers take in one another's washing—that is, they try new varieties, buy sittings to obtain fresh blood, or, in the hope of improving their own strain; and in this they are not unique. For the most part, however, their sittings' clientele consists of novices, country gentlemen (and the like), and perhaps, most of all, of what may be termed the "artisan" class—a very large number of the last-mentioned being extraordinarily keen on a "fancy" of some sort, especially if this includes competition with their fellows. Moreover, there is, in the purchase of, say, a two-guinea sitting from somebody's noted winners, that very decided element of sporting chance that appeals so irresistibly to Britishers as a nation. While it must be admitted that the odds are decidedly against the purchaser, the fact remains that hope, "springing eternal," continues to aid the creation of a good demand. From the rough table average expectation per 100 chicks reared, which was given in "Eggs" for March 10th, we see that, presuming a customer to rear chicks from a sitting, the chances of obtaining a champion therefrom are 50 to 3 against; of getting a "second string," 7 to 3 against; and about 3 to 2 on a bird up to "small-show" form being obtainable.

However this may be, it is probable that the annual takings from sales of eggs of all kinds, whatsoever (and herein are included day-olds—though for some reason the man under discussion does not usually deal very largely in these) total to something like £200. In this and all other calculations it must be remembered that we are not considering anybody exceptional, or with large capital, but just the average type, more or less struggling, whose "staff" consists of a single boy or youth aided at times by perhaps a pupil-assistant on reciprocal terms—or something similar.

Now for the young stock. One thing about them is that the culls, being available early and usually remarkably big in bone, always sell at table prices rather better than anyone elses. This, of course, is due also partly to their generous feeding from both, and to the good condition in which the fancier usually markets them, for none will deny that he can always "put down" a bird of any age looking its best. In any case, however, as was indicated in our percentage table, these culls will not amount to very much, and from the end of April until July the pens will be relieved by these only to the extent of some 10 per cent., our 600 chick man thus getting rid of 60-odd in this way. A beginner, however, would have to cull very much harder, not having the same sale for stock birds later.

By about midsummer, the fancier will be gaining a very good idea as to how the young stock are going to turn out, though there can be no certainty yet awhile. Soon afterwards he will begin sorting them out into groups, which may roughly be summarised as probables, possibles, and improbables. The first named are given the best housing and penning available, with a view to developing them to the utmost. Most likely the cockerels—

Section B. (1). A.V. **Heavy Breed.** (Confined to owners of not more than 50 laying head).—G. D. Bond (W.W.), 2227; E. A. Craft (L.S.), 2003; W. P. Merrett (W.W.), 1876; E. G. Brown (W.W.), 1341. J. C. Dee (R.I.R.), 1050; Miss M. Clarke (R.I.R)., 1012.

Section B. (2). A.V. **Light Breed.** (Confined to owners of not more than 50 laying head).—E. G. Brown (W.L.), 1183; C. E. Skirten (W.L.), 1075; F. E. Fowler (B.L.), 1016.

Pen Duck Section. (Four ducks to a pen).—G. H. H. Simmons (K.C.), 264 pts.; Major J. G. Dugdale (K.C.), 252; S. J. Phillips (K.C.), 246; G. B. Young (K.C.), 229; Mrs. H. L. Hanks (K.C.), 207. F. W. Clifford (K.C.), 146.

SINGLE PEN SECTION.

Section 1. White Leghorns.—L. Grist (14), 506 pts.; A. Daunton, 411; Fielding Smith (4), 381; Lieut.-Colonel Hancock, 345; Fielding Smith (45), 323. A. A. Paul, 318.

Section 2. White Wyandotte.—H. W. Stephens (30), 489 pts.; Miss H. Baylis, 467; L. Grist, 438; A. W. Harrison, 418; Philip Clapham, 392; F. A. Welch, 384.

Section 3. Rhode Island Red.—F. A. Welch, 460 pts.; M. C. Beale, 409. Wood and Bacon, 281; A. Daunton (46), 263; W. Bingle, 226; Miss M. Lawrence, 219.

Section 4. A.O.V. Light Breed.—R. Sysum (Brown L.), 334 pts.; White and Martyn (B.L.), 208; Churchdown P.F. (B.L.), 156; Miss N. Townsend (B.L.), 51.

Section 5. A.O.V. Heavy Breed.—Mrs. E. Weinholt (Aus. Orp.), 435 pts.; G. H. H. Simmons (Buff Rock), 407; F. R. Welch (L.S.), 391; Philip Clapham (B.R.), 381; G. B. Young (L.S.), 365; J. G. Herbert (B'Veld), 365.

Section 6. Ducks.—H. L. Hanks, 133 pts.; Major J. G. Dugdale (3), 125; Mr. and Miss Streafeild, 109; H. W. Fowles (2), 108. Major J. G. Dugdale (4), 102; F. W. Clifford, 96. (All K.-C.'s).

fewer in number than the pullets because the male is invariably harder to attain in perfection—are put three or four together in shady runs, while perhaps a score of the best pullets are moved to a big shed, kept clean with plenty of straw, and mainly confined between the hours of 11 a.m. and 4 p.m., though weather enters largely into this (the main thing is to prevent scorching by sun, or rotting the web of the feathers by constant rains) programme, which may change daily.

The possibles will run together for a month or more yet, while the improbables naturally receive least consideration; and, moreover, since our friend is not a fool by any means, they doubtless no longer get the same generous feeding as is accorded the pick of the flock.

While on the subject of the last-mentioned pullets we may as well thrash out their future fate. Candidly, the fancier is going to sell all he can at "utility" prices, which, being interpreted, lie somewhere between 15/- and 21/- apiece. Now do not be too hard on him for this. He does not advertise them, you know, as being bred from 285-egg strain, and after all they are fine birds, satisfying to the eye, and at the worst it is a case of "Caveat emptor!" But, after all, are they necessarily bad layers? By no manner of means. Probably they have been culled because they are on the small side, or a shade long in the back, or perhaps tight-feathered (all from the fancy point of view); but are not these very "failings" desirable features in a layer?

Remember, too, that their heavy parents have, for generations, been required to be producing fertile eggs in November and December, and undoubtedly have done so.

There are no doubt some drones among these particular birds (and in what flock are there none?), but there is equally no doubt that many of them will be, and have been, found to respond most remarkably in the hands of egg specialists. Chiefly, perhaps, from the winter and large-egg standpoint, and also because coming straight off free range (as they probably will do—as sold) where they have more or less roughed it in open-fronted roosts, without floors (a favourite method of housing growing pullets of less outstanding merit), these birds render an excellent account of themselves, when subjected for the first time to the more forcing methods of the utilitarian.

There it is then, the fancier's weak spot is that he cannot guarantee or give any egg records with such birds, whose qualities in this direction will admittedly be mixed. Ask him, however, to pick you so many of his likeliest layers, and blend them thereafter into your flock, using your usual selective methods, and one can pretty safely forecast that the result will be by no means disastrous to say the least.

(To be continued.)

(Continued at Foot of Next Column.)

Commercial Poultry Farming.

By T. W. TOOVEY.

In giving a plan of a commercial poultry farm for 2,000 birds (at four square feet per bird, the plant would really hold 2,100) I have somewhat revised one or two statements made in a previous article. I have put nine houses in each paddock, but as the two breeding pens have double runs and could be therefore permanently occupied, twenty houses would always be occupied, while those in the third would for part of one year be resting in turn, taking the pullets from the chicken houses in the latter part of that year. The cockerels would be finished in the chicken houses, with four chicken houses, each 60 feet long, there would be ample accommodation.

In trying to give an ideal farm according to my ideas, I have taken 16 acres for the purpose, each of the paddocks is assumed to be of four acres in extent. When each house was fully stocked the birds would be running at 236 to the acre, but we all know that plant does not remain fully stocked; wastage is always going on in the shape of deaths and culls, so the number to the acre would not average 236 throughout the period of occupation.

If another plant of 2,000 birds was installed alongside, the cost would be reduced per hen, and even more so if another also was arranged, as the establishment buildings would serve for all three, providing they were built large enough. I am interested in the lay-out of two farms that are now being erected; one belonging to a late pupil of mine, and one to a young friend. When completed the latter will be almost exactly on the lines of the plan. Land is cheap and plentiful in both cases, so at least 16 acres per 2,000 birds will be taken. This farm also has been adapted to the system, the paddocks containing about 900 head each. In my case, owing to the lay-out of the land, and the variation of the size of the houses, a lot of work was involved, such as moving houses bodily. In fact, we have only just finished. In the case of my two young friends the houses are all of one type, viz., the 30 ft. by 14 ft., 8 ft. high in front, and 5 ft. at back, and they are built of the material of the estimate. I submit the

NOTE.—At the conclusion of previous article for "clover" please read "colour" (though clover might almost stand!). Also, in paragraph 3 (p. 198), line 6, for "ground," read "round."

estimate and plan. I think, taking everything into consideration, it is closely accurate. Of course, double this amount could be spent, but if the plant were built on the simple lines I have adopted it could well be set up for the sum mentioned by employing direct labour and using the materials throughout mentioned in the previous article, except that quartering 3 in. x 2 in. would be required for most of the establishment buildings. I never use match boarding except for lining the inside of such a building as an egg store.

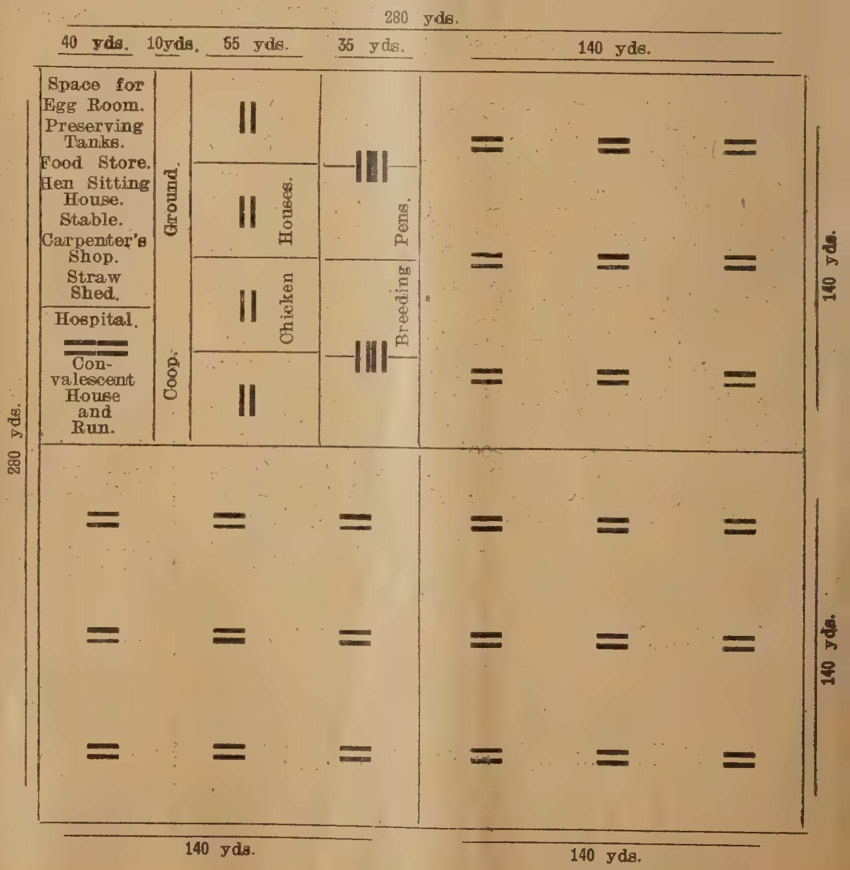
Weather-boards or feather-edge, as it is technically called, is far superior for outside work. The floors of all the buildings to be of concrete. This makes the best floor. The cost will vary according as to whether such material as clinkers, ashes, sand and rubble can be obtained locally at a cheap rate. The floors laid here have a foundation of clinkers rammed hard, over these the concrete proper is spread about one and a half inches thick, and half sand and half ashes are mixed with the cement at the rate of four to five parts of the mixture to one of cement.

ESTIMATE OF COSTS FOR 2,000 BIRD FARM WITH FULL EQUIPMENT.

Houses (31, including one for the hospital), at £25 each	£775 0 0
Chicken Houses, four, at £40	160 0 0
Coops and Runs, 50, at 20s.	50 0 0
Egg Room, Office and Preserving Tanks ...	120 0 0
Food Store and Mixing Place	60 0 0
Hen Sitting House with 50 Nests	50 0 0
Stable for one horse and cart shed	25 0 0
Carpenter's Shop and Tools	30 0 0
Hay and Straw Shed ...	20 0 0
Fencing	110 0 0
Sundries	100 0 0
	£1,500 0 0

PLAN OF 2,000 BIRD FARM.

Total 16 acres.



Correspondence.

ROUP.

To the Editor of "Eggs."

Dear Sir,—There must be many more of your readers beside myself who would like to know the "Cost per bird," averaging a cured flock of fowls from roup.

Profit and loss by both systems, the one killing quickly and ruthlessly all infected birds has many times proved successful in stamping it out. The other by using costly specifics to obtain cured birds, the value of which must vary considerably, also loss in egg production while stock is under treatment, with extra utensils, labour, etc., must make the comparison instructive. Many other "Roup experienced" may like to help, but I am afraid the old saying stands true—"Those who write, don't know. Those who know, don't write."

Mr. Toovey tells us in "Eggs," May 27th, "Mortality increased weekly from 17 in a week, February 7th, to 209 in a week, May 9th; total lost reaching 1,600 by May 23rd."

In "Eggs," June 17th, he reports:—"Progress favourable. I feel sure the disease can be cured, although I thought we were down and out for good."

July 1st, continues:—"I have many hundreds of cured birds; after cure they are soon in full lay."

He afterwards states that Mr. Brain only arrived on the farm about June 25th, so the point is: How did Mr. Brain save the farm before he arrived? Mr. Toovey previously states he received the help of a gentleman about the 6th May, the only person he could find to assist him. Perhaps this gentleman will be good enough to tell us the "cost per bird" of these many hundreds he cured. The whole industry is seeking an economical or the most economical cure, and if "Eggs" can find it—then bravo "Eggs"!

Yours faithfully,
"POULTRY FARMER."

INTENSIVE REARING.

To the Editor of "Eggs."

Dear Sir,—On February 8th you very kindly advised me as to rearing my chicks intensively for the first six weeks. My first batch is now six weeks old, and I thought perhaps that as the idea of keeping chicks confined to the brooder houses for the first few weeks of their existence is fairly new, you would like a report as to my own experiment.

The house is built entirely of cement asbestos sheeting, 24 ft. x 10 ft., 5 ft. to eaves and 8 ft. 3 in. to ridge, ventilation all along the ridge. The house contains two brooder units—each unit has a day and night nursery, each 6 ft. x 10 ft. The night nursery has only one small window to the outside, high up, and is only used for allowing light in when the attendant is working in the night nursery; otherwise it is covered up. The windows are on the floor on the day nursery partition. I find that this assists in getting the chickens to spend more time in the cool chamber. These windows, too, are supplied with shutters, which can be closed and so make the night nursery perfectly dark, which allows one to put the young chicks to bed and keep them quiet at any time of the day when they are quite small.

Blue-flame hovers are provided, and the lamps are on a hollow floor, 3 ft. 6 in. square, covered with wire and hessian. This hollow is connected with the outside of the shed with a 4 in. pipe. In this way the lamp gets **all** its air direct from outside the shed, and also keeps a good supply of warm fresh air passing round the hover. I keep the lamp high, and get a floor temperature 6 in. from the outside of the hover of 90 degrees. This keeps the chicks outside and away from any risk of fumes. I have had no difficulty in doing this in the coldest days with north-east winds direct on the house.

The day nursery, 10 ft. x 6 ft., windows 3 ft. x 6 ft. in front, the top half of which opens **outwards,** and allows on fine days the window to be open right up and the chicks get real unfiltered sunlight (if any?). The back of this compartment has a window 1 ft. 6 in. x 6 in., and 1 ft. 6 in. from the floor, under which is a dry mash hopper 6 ft. long. The front window, by the way, goes right down to floor level.

The door on the end of the house can be wide open on fine days, the inner wire netting door being kept closed; this is made of ¾ in. mesh wire netting so as to keep out **all** vermin.

The floors in both day and night nursery are solid earth, except, of course, where the cavity is under the hover; this is just rough cement, on which rests the supports for the hessian and lamp.

The house is free from draughts in all weathers. If it is of interest, its cost, including guttering both sides, and labour, was, if I include two hovers at £6 10s. each, £36.

I have given you a full detail of the house, because it must have an important bearing on the success or otherwise of this system of rearing.

As the weather was very cold I found that the temperature of the chick drawer in the incubator was too low, so I moved the chicks at 24 hours old—taking every precaution against chills—to one of the units of my brooder house; 279 of them—R.I. Reds, White Leghorns and White Wyandottes. I took them **all,** put them round the hover, and shut them in the dark and left them. Next day I found them all O.K. I proceeded to give them drink and to get them to feed, and sorted them over, removing 12 culls, which under normal circumstances I should not have taken to the brooder at all. This leaves us with 267. The next day I squashed four (accidentally, of course). At two weeks I killed two miserable little chicks which never seemed to eat, but always had a famished look. One other we found crushed near the hover next day—a big R.I.R. At three weeks a few of the Leghorns (seven or eight) and one R.I. Red showed distinct signs of leg weakness. I gave them a few drops of cod liver oil, and next day I put the five worst to a hen. She killed three, so I returned the remainder to the brooder again. One fine chick was found crushed (R.I. Red) a few days ago. To-day 256 six-weeks-old chicks were allowed to run out for the first time. They look healthy and fit, and all who see them are surprised at their size and condition of feather for their age.

They have been fed on the chick mash and grain as given on page 98 of the 1926 Register, my own fads being to add lime-water to drinking water and mineral mixture (see page 72 of Register) to the mash. About one day a week an iron tonic in all water; ½ gallon of skimmed milk was consumed each day. Green food (leek tops, cabbage and lawn cuttings) were consumed in large quantities. I was surprised what quantity of this material they can put away.

Except for the additions I have mentioned, I have, I believe, followed your feeding exactly.

From the casualties—eleven out of 267, which includes seven killed by the hen and myself accidentally, I think it proves that so far it has been an unqualified success. In the second unit I have 273 (there were 275) now three weeks old, which are, I think, doing equally well. These are having exactly the same treatment, except that cod liver oil is given in the mash from the seventh day; the others I did not start until a fortnight old, when the first signs were noted of leg weakness.

Yours faithfully,
T. HOWARD PEERLESS.

STOCK POULTRY LAYING RECORDS SCHEME.

To the Editor of "Eggs."

Dear Mr. Newman,—May I reply to the letter from Mr. Tom Barron which appears in your issue of "Eggs" this week?

Mr. Barron accuses me of trying to rush a scheme through before it has been thoroughly considered. Nothing was further from my thoughts, and if Mr. Barron will read through my letter to "Eggs" again, he will see that I urged that now the scheme has been put out by the Ministry of Agriculture it is for those engaged in the industry to make the effort to improve the scheme and get it established.

My reason for quoting in my letter the Canadian export was, that only the week of my letter there had come into my hands an example of what was being done by that country, under its R.O.P. scheme, in exporting birds to Denmark. This appeared to me to be a direct hit at our English breeders and exporters, and that unless we in this country do take measures to keep abreast of the times other countries will cut us out. A policy of "laissez faire" will see the ruin of our export trade.

Mr. Barron's statements that "the scheme put forward by the Ministry of Agriculture is not workable, and will if forced into being induce more dishonesty in the poultry industry than ever before," and again, that "the breeders of to-day stand on their reputations, and it is not fair for any scheme to spoil this," are not even destructive criticism, for he does not give any reasons. Assertion is no argument. Surely if a scheme can be worked over a big country like Canada it is possible to devise and work a scheme in England.

The present breeder's position will be greatly improved, for whereas now he has only his own word to vouch for the birds he exports, under the S.P.L.R. scheme he will have that of a Government authority to back him.

We all know there is only one Tom Barron in this country, and what applies to him could hardly be said to apply to the many breeders who export stock. Mr. Barron's name stands so high that he is already known all over the world, but what about the many breeders lacking such a name who are losing trade because other countries are providing their breeders with the means of guaranteeing the stock they export?

As Mr. Barron asserts there is dishonesty going on, and we are continually hearing of cases from other countries where the stock sent by some of our breeders is not satisfactory, and it is undoubtedly doing harm to this country. A scheme such as that now put forward would protect the importer, and induce other buyers to come to us for stock. With the development of the poultry industry which is taking place in many other countries, and in our Colonies, there is a demand for birds which our breeders could supply, but which we shall lose unless we keep abreast with modern requirements.

Canada, last year at the Wembley Exhibition, issued a most attractive booklet upon its poultry work, and this booklet must have got into the hands of buyers from all parts of our Colonies and elsewhere. In its opening page it states:—"Canada leads the world in pedigree poultry breeding. This is a bold statement, but one that can be substantiated." Then later, it continues: "In adopting registration for poultry Canada undertook to do the most advanced work ever attempted in connection with pedigree poultry breeding in a national way. She placed her poultry industry on the same footing as other pure-bred live-stock industries, and is at the present time the only country in the world providing for the registration of poultry."

What are our poultry breeders going to do to assist the industry?

Yours truly,
P. HEDWORTH FOULKES.

SEX INDICATORS.

To the Editor of "Eggs."

Dear Sir,—I was interested to read your note about Sex Indicators, and I was surprised to hear that there are still to be found people sufficiently gullable to buy such things. A few days later I came across an advertisement for one of these frauds in a paper dealing with general farming (surely the advertisement manager was asleep when he passed it for publication).

It is true that the pendulum will perform different motions when held in the hand, and there is an element of truth at the bottom of the thing. But there is absolutely no connection between the movement of the pendulum and sex. This can be proved by hanging the pendulum from a nail—the pendulum will not move at all however many different kinds of eggs are placed under it.

The explanation, as you said, is auto-suggestion, or more correctly subconscious cerebration.

I remember, as children, we used to amuse ourselves in this way with a watch and chain. It is an interesting experiment, and it exemplifies very well the working of the two parts of the human brain—the conscious and the subconscious.

Take a watch and chain. Plant your two elbows firmly on the table. Hold the end of the chain tightly in your two hands with the watch hanging at the end of it. Try with all your might to keep the chain as still as possible. Now imagine that the watch is moving forwards and backwards. It will soon begin to do so, however still you think you are holding your hands. Then imagine that it is swinging sideways or round in circles. Again it will do it without any apparent impulse from your hands.

When you place an egg under the pendulum you **expect** it to move in one or other of the suggested directions, and of course it will do so. Subconsciously your brain dictates which.

Yours, etc.,

I. J. O'HEA.

THE INTENSIVE SYSTEM.

Dear Mr. Newman,—Your articles on the Intensive System have been both interesting and helpful, especially as regards chicken rearing. Having had some very expensive experience with Coccidiosis, I am convinced it is the only way to fight it, seeing how greatly it is on the increase, and how hopeless to cure. To attempt the cure, or even to stop the spread of either Coccidiosis or B.W.D. in a flock of chicks, when once it is discovered, seems to me only asking for further trouble, and to advise doing so seems to me both dangerous and wrong. Kill the lot is the best and cheapest way in the long run, for those that remain are carriers for life, and are not only a menace to the farm on which they live, but to others around, through the wild birds taking it, and so on throughout the country. This undoubtedly is the way in which it is being spread. Would that the Ministry of Agriculture would enforce this, as they have done with Foot and Mouth Disease in cattle.

Although for these reasons I consider the intensive system offers a great deal to us for chicken rearing, I am not convinced of its desirability with adult stock. After seeing the various reasons given for and against I have been rather surprised that nobody has given attention to the nervous system of the fowl and the effect various methods of keeping them have upon it. The very appearance of the birds kept intensively for a long period have always struck me that it is here they are most affected. However nice a house we had, and however well balanced our diet, were we always to be shut up. I think it would be our nerves which would suffer most. If they only had a concrete yard of about the area of their laying house, to get out into the air where their greenstuff could be fed and which could easily be washed down, I think it would be better than total confinement.

I have also been interested in your remarks on leg weakness in chicks, but do not agree with you as to its cause. I think it is again a matter of the nervous system being affected by long hours under the hover or hen, as is particularly the case with early-hatched chicks. Were it the failure to assimilate calcium, I do not think Cod Liver Oil would cure it with the speed it does. For instance, with the January-hatched chicks here, we had some half-dozen cases, and in three days Cod Liver Oil cured them, and they only had it for a week. Can you imagine a chick in three days assimilating sufficient calcium to be able to walk properly again?

The discovery of Cod Liver Oil for leg weakness is undoubtedly one of the most valuable of modern times, and makes it possible to rear chicks intensively without that awful bugbear hanging over our heads. One likes to know though what definitely is its action, and my theory is its speedy tonic effect on brain and nerves.

Trusting these remarks will be of assistance.

Yours faithfully,

C. E. HAWARD.

DIGGING IN GRAIN.

Dear Sir,—I was interested to learn from Mr. Toovey's article in this week's "Eggs" that he had come to the conclusion that digging in grain does not pay. We have had the same opinion for some time, and our method of feeding is to leave the mash hoppers open over night. The birds are allowed two hours in the morning at these, and are then grain fed—mash hoppers being left open all the time. The excitement when the grain arrives greatly relieves what, by then, had become more or less a dull day for the hens. An hour later the birds are allowed out if the weather is favourable. The number of eggs laid by the time the grain feed is given is most noticeable.

We are taking Mr. Toovey's advice regarding trough feeding. I must confess I never enjoyed the labour of digging in—either myself or the grain for the birds. In the army we always welcomed even a cup of tea before "rouse parade," and it seems to me hard lines on the poor hen to have to slave away like blazes for a few grains of corn directly she wakes up. On the present method she can have a good tuck in at the mash, and then consider the matter of laying in comfort.

CHICKS. We have had some really excellent results this year on the following system of feeding:—First five days as you advise, but No. 1 mash in place of bran—then straight away on to BREEDER'S MASH, with the usual chick feed, green stuff, etc. *No milk till they are five days old.* I am inclined to think if milk is given too early it is liable to upset their digestive organs.

Possibly some of the components of the mash may not have been of the best quality, but especially when the days are short, we found these chicks on the more concentrated mash were leaving the others far behind. The chicks were all of the same breed and housed under similar conditions.

Yours truly,
LESLIE G. M. WHITLEY.

POULTRY FARMERS AND THE INLAND REVENUE.

In view of the fact that the Inland Revenue have not taken any further action in respect to the Nuttall case, as decided by Mr. Justice Rowlatt, on March 11th, 1926, in the King's Bench Division, this Order of the Court, following upon the judgment in the Edinburgh High Court on October 27th, 1925, may be accepted as deciding the question so far as the present law is concerned. Such was the contention of the National Poultry Council when it first took up the defence of poultry farmers in this connection nearly five years ago (August, 1921), and has been consistently maintained, namely, that poultry farming is husbandry and not industry. It has sought that the point should be tested in the High Court of Justice, but the various appeals which the Inland Revenue had entered against a considerable number of decisions given by Special and Local Commissioners that poultry farmers were legally assessable under Schedule B., as are ordinary farmers, have not been carried forward, but held over in some instances, and in the meantime pressure brought to bear to frighten poultry-keepers into paying what are now seen to be demands made without legal grounds. It would appear probable that the Nuttall case was selected, not because it was a fair representation of poultry farming, but that the area of the land was very limited, and the system used by the poultry farmer fairly intensive. The Lancashire Federation deserves the fullest commendation for bringing this case before the National Poultry Council, the Executive Committee of which realised its importance, and that if decided against Mr. Nuttall, how the Inland Revenue Authorities would make use of it. Therefore, the Executive Committee decided to fight the case to the fullest extent. The promptitude of the Committee and the Hon. Solicitors, Messrs. A. E. Hamlin and Co., has brought about the defeat of the Inland Revenue.

There seems to have been an impression that the National Poultry Council should take up and fight every case submitted to it. That was financially impossible, and would not have effected the purpose in view, namely, obtaining a decision which would apply to all cases of the same nature. All that it could do was to give the best possible advice in the cases brought before it, of which there have been some hundreds, and to reserve its limited Legal Defence Fund for a case or cases that might be expected to settle the question at issue. Only a decision in the High Court would be accepted as applicable to the entire country.

In many instances where for various reasons it was thought inadvisable to recommend poultry farmers to incur costs in making appeals, the recommendation was made that the amount of assessment under Schedule D. should be paid under protest, intimating at the time that claim would be made for its return if a decision was given in the High Court that poultry farming is husbandry. In all such instances it is now urged that claims be made to the local Income Tax Surveyors for repayment of the amounts paid under Schedule D. in excess of Schedule B., assessable value. It will be well, however, that these be at once reported to the National Poultry Council, 20-21, Essex Street, London, W.C.2.

Where assessments have been paid under Schedule B., without protest being made at the time, claims for repayment should also be made as suggested above, calling attention of the local surveyors to the decision in the Nuttall case. The National Poultry Council is advised that probably there is no legal claim under these circumstances, but that it is possible the Inland Revenue may be prepared to consider favourably such claims for repayment. That, however, remains to be tested. These, also, should be reported to the Council.

Should local Income Tax collectors continue to press poultry farmers for payment in respect of existing assessment under Schedule D., their notice ought to be called to the Nuttall decision, and written notice should be given to the Collector of the members' refusal to accept assessment except under Schedule B.

In cases of new assessments being raised under Schedule D., notice of objection should be given in writing within 21 days of the notice of assessment, as notice given after the time limit has expired is invalid.

POULTRY FARMING PROSPECTS FOR WOMEN IN BRITISH COLUMBIA.

Women coming to this province to engage in Poultry Farming, especially if experienced, should be prepared to meet an entirely different set of conditions to those obtaining in the Old Land.

They should remember that this Province is only, as it were, in its infancy, and that one of the biggest drawbacks to successful marketing of poultry products is the sparse and widely-scattered population. At present there are no such marketing facilities as are to be found in England.

For the past five years this Province has been producing more eggs than it consumes, with the result that outside markets have to be sought. This means that eggs have to be shipped as far as twenty-five hundred miles east, and at the same time have to meet the competition from eggs produced on the Pacific Coast by poultry breeders in the United States.

The big advantage enjoyed by this Province lies in the fact that the climate, being so much milder than in any other part of Canada, there is much higher egg production, especially during the winter months.

To offset this, however, breeders are forced to import their feed supplies from the Prairies—a matter of twelve or fifteen hundred miles.

There are quite a number of women in the Province engaged in commercial poultry farming. Many specialise in poultry, but others add small side lines, such as bulb growing, bee keeping, rabbit farming, and the canning and preserving of fruit and vegetables.

Most of those who have succeeded have sold the greater part of their produce by engaging a stall at the bi-weekly markets held in the larger cities. Many of our breeders have started off by peddling their eggs and produce amongst private parties, but very few continue this for long, as the time expended and the excessive book-keeping make it unprofitable.

Many of the larger commercial poultry farms employ women assistants, particularly for operating the incubators and brooders during the hatching season. Salaries are from 20.00 dollars to 50.00 dollars per month, with board, according to the experience and competency of the operator.

About 90 per cent. of the poultry farms in the Province are situated on the Coast, and on Vancouver Island and the adjacent Gulf Islands.

Those without experience are strongly urged to work at least six months on a commercial poultry farm before starting independently.

Those who have experience and sufficient capital to start are advised to rent a place for at least one year. Many thousands of dollars have been lost through hasty and ill-advised purchase of places which prove to be unsuitable or unhealthy for poultry.

As to capital required I would consider that not less than £750 should be possessed by a settler wishing to commence independent poultry farming.

Egg farming is the most profitable branch of the industry; women with experience in fattening table birds should be able to make a good profit.

The Provincial Department of Agriculture have four Government Poultry Instructors, and advice can be secured free of charge from the instructor in the district in which one locates. It is most advisable to interview an instructor before locating as disinterested advice will be given.

J. R. TERRY,
Chief Poultry Instructor.

THE YORKSHIRE FEDERATION LAYING TEST, LTD.

2nd International Egg-Laying Test, 1925-26, now being conducted at the Test Ground, Otley, Yorks.

FIFTH REPORT—Period, 20th Oct., 1925, to 8th March, 1926.

The pens of birds, and single birds, leading at present, with their records and with the names of the Cups for which they are competing are given below:—

For the "Daily Dispatch" Gold Challenge Cup for the pen in Classes A or B, which produces the highest average per bird.—Sutton and Sons, Preston (W.W.), £1 5s. 3d.; J. H. and W. Brayshaw, Cross Roads (W.W.), £1 1s. 11d.; R. Rodwell, Nelson (B.L.), £1 1s. 6d.

The "Miss Delaney" Silver Challenge Cup for the best bird in the Test, and the "Daily Dispatch" Prizes of 12 guineas, 7 guineas, and 5 guineas for the three best birds in the Test.—G. H. Rayner, Grantham (W.W.), 97 eggs; Dr. J. E. Helm, Waterfoot, Lancs. (W.W.), 106; Miss Mawson, Adel (Bff. Rk.), 107.

The "Mrs. Clay" Silver Challenge Cup for Class A, Section 1, White Wyandottes.—A. Snowden, Pool, 768 eggs; Dr. J. E. Helm, Waterfoot, Lancs., 723; R. Rodwell, Nelson, 614.

The "Tom Barron" Silver Challenge Cup for Class A, Section 2. White Leghorns.—R. Rodwell, Nelson, 740 eggs; Tom Barron, Catforth, 619; Lord Dewar, East Grinstead, 618.

The "Sir Donald Horsfall" Silver Challenge Cup for Class A, Section 3, A.O.V. Light or Heavy.—S. Street-Porter, Ely, Cambs. (Anc.), 604 eggs; F. R. Welch, Bewdley (Bff. Rks.), 513; Tom Barron, Catforth (RI.R.), 501.

The "Frank Snowden" Silver Challenge Cup for Class B, Section 4, White Leghorns.—R. H. Fryers, Bradley, Keighley, 453 eggs; G. W. Sutcliffe, Hebden Bridge, 441; W R. Auty, Sandy, Beds., 418.

The "Allen Bros." Silver Challenge Cup for Class B, Section 5, Black Leghorns.—R. Rodwell, Nelson, 511 eggs; W. Sharp, Bell Busk, 319; The Late Col. Spence, Kirklevington, 304.

The "Jack Wrennall" Silver Challenge Cup for Class B, Section 6, White Wyandottes.—Sutton and Sons, Preston, 656 eggs; J. H. and W. Brayshaw, Cross Roads, 545; G. H. Rayner, Grantham, 448.

The "Fred Simpson" Silver Challenge Cup for Class B, Section 7, Rhode Island Reds.—Miss Maddison, Dane Hill, 442 eggs; Miss D E. Kitchin, Easton, 389; R. Rodwell, Nelson, 406.

The "Will Hamnett" Silver Challenge Cup for Class B, Section 8, A.O.V. Light or Heavy.—S. Wigglesworth, Farsley (Bf. Rks.), 463 eggs; J. W. Towler, Farsley (Bf. Rks.), 493; A. White, Malpas (Lt. Sux.), 441.

The "Yorkshire Federation" Silver Challenge Cup for Class C, Section 9, Any Variety, Light.—S. Hartley, Haworth (W.L.), 89 eggs; Mrs. Hawkesworth, Pool (W.L.), 86; C. Sturdy, Harewood (Bl. L.), 81.

The "Percy Wainwright" Silver Challenge Cup for Class C, Section 10, Any Variety, Heavy.—Miss Mawson, Adel (Bf. Rk.), 107 eggs; Mrs. Hawkesworth, Pool (W.W.), 113; S. Hartley, Haworth (W.W.), 115.

The "G. R. Poole" Silver Challenge Cup for the best pen any colour Orpingtons, Australorps, or Rocks. — S. Wigglesworth, Farsley (Bf. Rks.), 463 eggs; J. W. Towler, Farsley (Bf. Rks.), 493.

MEMBERSHIP OF THE S.P.B A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, of farmers on a large scale to render themselves eligible for membership of the S.P.B.A This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely: Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, **The Beeches, Rudgwick, Horsham, Sussex. The financial year began on 1st September.**

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

'BODIES" for post-mortem examination should be sent to **Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing**

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership **(NOT from Major Saunders).**

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

M. E. R. (Staverton) writes:—Will you kindly advise re chicks not doing well? I have very similar trouble to "J.M." (Hereford), in "Eggs," March 24th. The chicks do well until two or three weeks old (I have lost just two or three during the first fortnight or so, in each batch of about 80), then the trouble begins. As with "J.M.," the wing weathers grow too quickly, the wings droop and the chicks die—or rather, I kill off about 20 or more during the next fortnight. Now I have sold several lots of chicks. People are pleased with them for a fortnight, then, as with mine, trouble commences. In this case it is not bad feeding, nor too high a temperature or overcrowding, as chicks hatched from some eggs I purchased have done comparatively well. All this appears to point to the STOCK BIRDS or their management being at fault. The one thing which I fear is at fault is the housing; they are rather overcrowded, although they have good grass runs. Could this overcrowding of the stock birds at night be the cause of the trouble? If so, I cannot understand why the chicks do so well for the first fortnight. I have just had a letter from a customer who is very pleased with the day-olds, he says they are the strongest he has ever seen—and then "go wrong." Is there any "fell disease" which attacks chicks when two or three weeks old?—I think "M.E.R." should send some of these chicks for post-mortem examination. I strongly suspect Coccidiosis. I note what he has to say as to his fear that the housing is at fault, and they are rather overcrowded; but then we have also the fact that the chicks which he sells to other people suffer in the same way as do his own, and I would not expect overcrowding of stock birds at night to cause the trouble with the chicks unless there was some disease. Of course, if the stock birds are unhealthy through this cause, we may look for some weakness in the progeny. Yes, there is a "fell disease" which attacks chicks under two or three weeks old, and this disease is Coccidiosis. I would suggest that he tries giving fifteen grains of catechu to each gallon of drinking water and allow them nothing else to drink, kills off the chicks which are affected, and removes the remainder to fresh ground. There is no cure for the disease.

H. W. (King's Lynn). We regret that we cannot reply to your letter by post, as you are not a member of the S.P.B.A. I note that you are feeding your chicks on a dry chick feed made up to our formula. This should be given them after the first 48 hours until they are seven days old, and in addition to this they should be given skimmed milk to drink, if possible, and a hopper of bran and Quaker or Provost Oats always before them. After the seventh day they should be placed on the following mash:—21 lbs. bran, 10 lbs. alfalfa meal, 35 lbs. middlings, 21 lbs. Sussex ground oats, 14 lbs. maize meal, 8 lbs. fish meal. This should be always before them. The chick feed should be given them two or three times a day in very small quantities, merely as scratch feeds. As the last feed at night they should receive a full feed of the chick feed, as much as they will eat in about ten minutes. You must judge the quantity by what they consume, and be careful not to overfeed.

G. N. N. (Beaumaris) wishes to know whether first cross Leghorn-Wyandotte always throws the progeny with rose-comb, or whether some may have single-comb. This would depend upon the Wyandotte. If it was pure for rose-comb—that is, did not carry the single-comb factor—all the progeny would come with rose-combs, but if it is impure for that factor then a large percentage of the pullets would come with single combs. My correspondent then goes on to ask for any information re sex-linked crosses; would I say they proved satisfactory? Undoubtedly they have proved satisfactory, but it is important that there should be careful selection of the parents on both sides and that they should come from highly-fecund stock. The mere fact of crossing will not improve egg production. If my correspondent mates Brown Leghorn cockerels with White Wyandotte hens he will get sex-linked cross; the pullets will be red or buff and the cockerels white or silver. As to her doing better with any other cross, the R.I. Red cockerel gives some wonderfully good layers when mated to Wyandotte hens. The pullets in this case are red or buff, and the cockerels white or silver. The Buff Leghorn cockerel would also give good results with White Wyandotte hens, but I do not know that it would be better than the Brown Leghorn if she could get Brown Leghorn cockerels from a recorded hen.

C. G. S. (Blandford) wishes to know whether B.W.D. can be introduced into a flock by the male bird. Ditto, by an old incubator that had not been used for a few years.—With regard to its being introduced into the flock by male birds, I do not think there is any definite evidence on this point. So far as I have been able to discover, although male birds have reacted to the test, the reaction has been very slight. I must leave it at that, and at the present moment we do not know whether the male bird can introduce infection into a flock. With regard to the old incubator. This would possibly be the cause if chicks suffering from the disease had been hatched in it, and it had not been disinfected.

J. B. (Scotland) sends me six eggs, which she has taken from an incubator. She has good results from hens, but can only reach about 40 per cent. in the incubator. I am afraid the six eggs she sent do not help me, as four of them were infertile, and in two the germ had died at a very early stage. It would conclusively point to the fact that the stock birds are at fault, but yet under a hen she manages to get chicks. My correspondent says she cannot think it is the stock birds, because the eggs hatched so well naturally, but then what can I say when I am dealing with four clear eggs and two in which the germs had died at a very early stage? I am afraid I must leave it at that, and unless a larger number of eggs were sent I could not possibly give any advice on the subject.

S. L. (Whitchurch). If your chicks at three weeks old are dying from Coccidiosis, I do not see that you have any claim upon the breeder, as when you received them they would not be infected with this disease. I note you say that you have never had the disease on your own farm, but this does not prevent the possibility of the land being infected by wild birds. Coccidiosis is not an inherited disease in the same way in which B.W.D. is inherited. Scientists appear to differ as to whether the chick can be infected when hatched. On that point it is not for me to express an opinion. I see no reason why you should cancel the order for cockerels from the breeder because of this outbreak among the chickens which you received from him. As far as our knowledge goes at present, he must be exonerated from all blame. (2) I should like this sample of chick feed a good deal better if it did not contain so much millet. In other respects it is a nice clean sample. (3) I should prefer to give the chicks sour milk to drink rather than sweetened milk, but if you are giving them sour milk give it every day, and not sweetened one day and sour the next. I can assure you they are not likely to come to any harm through drinking the sour milk, and it is some protection against disease.

E. L. B. (Bristol) writes in reference to a certain advertisement in these columns, in which it is stated that no cases of prolapsus of the oviduct have occurred since using a certain mineral salt. My correspondent asks me whether we can attribute freedom from this trouble to the use of the particular mineral salt, and also whether I am the Mr. Newman referred to in the advertisement. I am compelled to answer these questions very frankly. I am not the Mr. Newman referred to in the advertisement, and this has been stated before in these columns. With regard to his first question. I think it extremely unlikely that the addition of any mineral salt to a ration would prevent prolapsus.

W. G. H. (Wallington) wishes for some information as to fattening R.I. Red cockerels. He separates the sexes at two months old, the cockerels then weighing 1¾ lbs. In previous years he has found R.I. Reds go "lanky," and extremely difficult to fatten. He wants a bird of about 4 lbs., and he wishes to know if it is possible to get this in sixteen weeks. I anticipate he will have some difficulty in doing this without cramming—that is, an average weight. It is first important that the chicks should develop some frame, and I suggest that he uses the mash which was used last year in the Wellingham Experiments until the birds are ten weeks old. As he has plenty of separated milk, he could omit the dried milk from the mash, and mix the mash with the separated milk. He could give them this three or four times daily, as much as they will consume, with a feed of cooked grain at night. At ten weeks old I would put them on to a fattening mash, pure and simple. This may consist of: Sussex ground oats and barley meal in equal parts, mixed to a crumbly moist consistency with the separated milk. It will be better if this is allowed to go sour. One point which is absolutely necessary during fattening process is that the birds should be kept quiet in a house which is a little on the dark side. In addition to the three feeds a day of as much of the mash indicated, I would give them a feed of boiled rice as the last feed.

B. D. (Effingham) sends me, in a match-box, something which a customer found in one of her new-laid eggs, and which has upset him very much. The something is a blood spot, the cause of which I have repeatedly explained in "Eggs," but which might once more be given here as the question arrives at this season of the year by nearly every post. When a hen is laying heavily the ovary is plentifully supplied with blood to promote the rapid formation of yolks. When a yolk sac ruptures to release a yolk, some blood may escape from a congested blood vessel in the sac. The blood passes into the oviduct with the yolk, where it becomes surrounded by albumen and incorporated in the egg. Sometimes the blood spot is in the white or albumen. In that case it is due to a ruptured blood vessel in the oviduct. I cannot tell my correspondent how to prevent this. As a rule only one or two pullets are the cause of the trouble, and it will right itself. A mild dose of Epsom salts may be helpful, and she must avoid stimulating feeding.

H. W. M. (Wednesbury) writes that he has just lost a Light Sussex pullet which died suddenly. On opening up the body he found the liver was a very bad colour and an enormous size. The heart seemed normal, but the gizzard was embedded in fat about an inch deep. The crop was full, and the intestines were full of green liquid. Does this point to overfeeding? He is feeding dry mash, but is pestered with broodies. His flock are Light Sussex. He has withdrawn the mash for a while and giving Epsom salts in the drinking water; feeding grain nly. Is he doing right? He has handled some of the birds, ut they do not appear to be very fat, and look red and healthy. think my correspondent is wrong in what he has done. It is mistake to treat the flock for the individual. This would ppear to be an unhealthy bird with a tendency to put on fat, nd he should not judge his flock by this one bird. He should ot have removed the mash, but have given the birds more cratching exercise, and if it was really necessary to have bulked he mash, although I would not advise this in his particular ase, because other birds do not appear to be fat. As to the roodiness, that is nothing whatever to do with the feeding. It s an inherited trouble, and he could only overcome it by not reeding from over-broody hens.

E. M. B. (Accrington) has purchased chicks from a breeder who advertises that his stock has been blood-tested. The mor- ality from these chicks was very severe, and the post-mortem eport states that they are dying from B.W.D. The breeder epudiates any liability, says such a thing is impossible, that is stock has been blood-tested. Unfortunately the breeder is wrong. It is not impossible by any means for heavy losses to e sustained with chicks which have been bred from blood-tested stock. This implies no reflection on the breeder, he has done all in his power; but the fact remains, and to my personal know- ledge, in several flocks this season which have been blood-tested, outbreaks of B.W.D. have appeared among the chicks less than eight weeks after the test had been made. I am reluctant to say this, as it may be thought to imply that I have no belief in the Agglutination Test. This is not the case. So far as I can discover, it is the only means we have at present of combating the disease, and I most heartily wish that every breeder in the country would have his stock tested. However good it may be, we have still to face the fact that it is not absolutely reliable. In answer to my correspondent's question as to the best means of preventing a further outbreak among his chicks which are hatching, I am afraid I cannot help him much. If it were possible to give them sour milk to drink directly they were hatched, and keep this constantly before them, allowing them to consume as much as they will, it may do something to check the disease. More than this I cannot say.

G. H. R. (Staffs). Chicks intended for post-mortem examination should not be sent to me, but to Major Saunders, whose address is given every week at the top of this page—but still they come. I do not think that you are losing these chicks from chill, as there was nothing to indicate that. The watery eye, I believe, is due to the fact that you are keeping them on peat moss litter, and it is the dust which is causing the trouble. We found particles of it in the crop and gizzard. When peat moss litter is very dry and dusty, it often causes trouble with the respiratory organs. If you were to moisten the litter it would overcome the difficulty. (2) If breeding stock is "forced" the effect on hatchability is greater than on fertility. I cannot say whether this was so in your case, as it would depend on what you would consider would constitute forcing.

S. T. R. (Burnley). This is a curious case. The eggs were certainly not infertile, and you should not entertain the claim. Something happened during incubation; two of the germs died at the third day, but the remaining ten all perished at the same stage, and I am inclined to think that the lamp went out, or in any case the eggs were chilled. (2) The records of these hens and the splendid hatching results certainly warrant your keeping them for another season, and I would also keep the male bird and use him again with the same hens when you have tested the pullets. (3) No, I do not think locust meal will give you better results than fish or meat meal, and therefore you will not be justified in paying a higher price for it; no comparative tests have been made, we know it is a good form of animal protein, but we do not know that it will give us better results than any other.

Backyarder (Essex). Ashes would not cause scaly leg, but the parasite is more common in dusty soil than on others, and we therefore find scaly leg more prevalent in ash runs; it is not inherited and is easily cured. Wash the leg in warm soapy water, then apply a three per cent. solution of Izal, taking care not to get it on to the flesh. If this is not available, you may apply equal parts raw linseed oil and paraffin; if you do this twice this should suffice. You will have no difficulty in rearing chicks intensively, but you must admit fresh air and sunlight to the house, and the latter must not pass through glass if the chicks are to get the full benefit of it. Plenty of fresh green food is essential.

E. H. (Tavistock) has a sorry tale to tell; pullets off their legs, shell-less eggs, and three cases of prolapsus. He wishes to know whether the latter is contagious. Some of the pullets have gone purple in the comb. Unfortunately no details of feeding have been sent, but it is nearly certain that we shall find the cause of the trouble here; and my correspondent is advised to discontinue mash feeding for three days, and give only good plump oats and wheat. A mild dose of Epsom salts would help matters considerably, and at the end of three days he may resume mash feeding; but he should considerably reduce the percentage of animal food, and for the time being give no maize. Prolapsus is not contagious. In answer to his second question, where there is such a shortage of green food, I would certainly advise the use of sprouted oats.

G. R. S. (Cumberland). A reprint of the articles contained in last year's register may be obtained from these offices, price 1s. 6d. post free. This contains feeding formulae for chick mash, from six days to eight weeks; Growers' mash, from eight weeks to five months; Breeders' and Layers' mashes, also a fattening mash, and recipe for No. 1 and 2 Chick feed. The formula which gave such wonderful results at Wellingham last year and the year before, and which is being repeated this year, was as follows:—Bran 20 lbs., middlings 45 lbs., Sussex ground oats and maize meal 10 lbs. each, dried milk 5 lbs., dried yeast and soya bean meal 5 lbs. each. To each 100 lbs. of this was added 30 ounces of the following mineral mixture:—Steamed bone meal, 60 parts; common salt and powdered oyster shell, 20 parts each. The mash was fed dry, and was always before the birds. (2) No method of feeding has been discovered which will prevent or check an outbreak of B.W.D. Sour milk has been tried, but I cannot say that we have any evidence that the results are satisfactory. (3) I believe that if sulphate of iron was given chicks from the first it would do much to check an outbreak of coccidiosis.

Disappointed (N. Wales). I have never heard it suggested that cross-bred chicks were immune to B.W.D., and how the idea entered your head I can't conceive. We have not the slightest reason that they are less susceptible to it than pure bred stock, or that their resistant power to this particular scourge is greater. I am sure the breeder in question did not lead you to think this, as I know he knows better; we have had several reports of cross-bred chicks being wiped out by B.W.D. (2) The sample of chick feed you send is not a good one, but I could not say that it was directly responsible for the loss of your friend's chicks. The fact that their crops were full does not necessarily indicate that the feed is at fault—that is arrested digestion, and may be due to chill or disease. (3) No, I would not use this hover; it is a death trap. (4) If you had joined the S.P.B.A. you would have got 12½ per cent. off the list price of this particular incubator. (5) If you mate the pullets from the sex-linked cross to a male of the same variety as their sire, the progeny would not be pure-bred, there are only certain characters which are sex-linked.

POST-MORTEMS.

J. P. The post-mortem examination of the chicks showed that in each case the intestines were impacted with a mass of undigested food, and the gizzards dilated with same. It appeared to be bran, mixed with a fine fibre, such as they would obtain by picking at the felts or flannel curtains of a hover, and there was a total absence of any kind of grit. There were no signs of actual disease, and in my opinion the cause is entirely digestive, and due to the above conditions.

E. S. F. The post-mortem examination of the W.W. cockerel showed lesions consistent with ptomaine poisoning, inflammation of the bowels, congested kidneys and liver, etc., and the description of the symptoms makes this diagnosis complete. Whether they have discovered some decomposed offal, or whether the fish or meat meal is responsible, I do not know, but some such foodstuff that has gone wrong or become contaminated would be the source of the trouble. Treatment in a case so far gone as this one was would be of no avail, and it would be better to try and discover the origin of the matter than to treat the victims.

M. M. The post-mortem examination of the chick showed only the lesions of congestion of the lungs, and as there were others that died at the same time, I wish you had sent them along as well, as this one may not be typical of the real trouble. The fee is the same for any number of chicks up to six, and the greater number gives me a better chance to arrive at the actual cause of the mortality. This chick was not suffering from "leg weakness," which is rickets, but it very probably was weak in the legs; most dying chicks are, from whatever cause. I should think that chill is the most likely cause, but the behaviour of the chicks in the brooder will show if the temperature is about right better than any thermometer.

M. E. W. The post-mortem examination of the chick showed that the yolk sac had not become properly absorbed, and had acted as a foreign body, causing a chronic irritation in the abdominal cavity. It was about the size of a filbert, and was actually found lodged between the live and the left lung, but it had become detached from its pedicle, and had evidently been wandering about in the body cavity. There were no signs of contagious disease, and the chick, although backward, was otherwise healthy.

LANCASHIRE FEDERATION OF UTILITY POULTRY SOCIETIES' ANNUAL EGG-LAYING COMPETITION.

Held at the Lancashire County Council Farm, Hutton, under the supervision of Mr G. H. Dobbin, the County Poultry Instructor

The winners of the Monthly Ribbons are as follows:—

Best Pen in Each Section.—Messrs. Longworth Bros, R. Burton, H. Sutton and Sons, A. G. V. Ermen.

Best Individual Bird in Each Section.—Messrs. R. Beesley, H. Marquis, G. H. L. Armstrong, J. Ashworth, W. B. Grimshaw, H. Ormrod.

The following are the leading positions in each section, showing the number of Eggs and Points respectively.

Fifth Month's Report...4th February, 1926, to 3rd March, 1926.

Section 1. White Leghorns. Large Breeders (Three Birds).—P. Williamson, 251, 1599; H. Cook, 258, 1570. R. Beesley, 205, 1493; A. Heaps, 276, 1454; C Morey, 227, 1282; A. T. Walker, 227, 1199.

Section 2. Any Other Variety Light. Large Breeders. (Three Birds).—F. C. Tomlinson, 212, 1435; J. P. Willacy, 206, 1220; J. Ashworth, 153, 1097. S. Street-Porter, 155, 853; H. Marquis, 99, 600; Riley Bros. (one dead), 105, 640.

Section 3. White Wyandottes. Large Breeders. (Three Birds).—H. Sutton and Sons, 286, 1886; Dr. J. E. Helm, 291, 1871; G. H. L. Armstrong, 239, 1623; J. Rainford (one dead), 218, 1500; J. T. Finn, 233, 1464. F. Holden, 229, 1407.

Section 4. Any Other Variety, Heavy. Large Breeders. (Three Birds).—R. Moon and Sons, 267, 1890; G. Cobham, 266, 1799; T. B. Grice, 226, 1697; J. Basnett, 264, 1684; H. Booth, 227, 1582; J. Ashworth, 253, 1556.

Section 5. Light Breeds. Small Breeders. (Single Birds).—J. W Halstead, 98, 701; W. R. Robinson, 87, 590; H. West, 87, 566; J. Thwaites, 91, 565; W. B. Grimshaw, 71, 446; H. West, 66, 457.

Section 6. Heavy Breeds. Small Breeders. (Single Birds).—T. Plumb, 80, 550; G. A. Walstenholme, 78, 530. C. Hargreaves, 82, 511; J. W. Pearson, 90, 490; Fort and Trippter, 59, 410; A. D. Walton, 70, 393.

WYE COLLEGE DUCK LAYING TRIALS, 1926-26.

Report for Fifth Period—February 21st to March 20th, 1926.

The weather conditions during the month have been favourable for egg production, and consequently the yield has been heavy. The average number of eggs laid per bird during the month has been 25.18, as compared with 12.54 last month. This makes the average per bird to date 56.47 eggs.

The health of the birds throughout the month has been good, and no deaths have occurred.

Pen Positions.—The leading position in the whole of the trials is retained by Mr. G. H. H. Simmon's Pen No. 6 (Khaki-Campbells), with a score to date of 414 first-grade eggs. This pen is followed by Miss Harrison Bell's Pen No .26 (White Runners), which is a very good second with a score of 412 first-grade eggs to date.

The leading pens in the Breed Sections are:—

Khaki-Campbells.—Mr. G. H. H. Simmons' Pen No. 6, 414 pts.; Mr. A. H. Dickson's Pen No. 17, 395; Capt. R. A. Long's Pen No. 2, 341.

Indian Runners.—Miss Harrison Bell's Pen No. 26 (W.), 412 pts.; Messrs. R. A. and A. M. Johnson's Pen No. 28 (W.), 336; Misses Davidson and Chisholm's Pen No. 20 (F.), 317.

THE LANCASHIRE UTILITY POULTRY SOCIETY'S INTERNATIONAL EGG-LAYING TEST, 1925-26.

SUMMARY OF LEADING PENS.

Figures are Eggs and Points respectively.

Large Breeders. Section 1.—Miss A. Paul, Blairgowrie, 838, 899; I. B. Gow, Cobham, 804, 866. J. Underwood, Loughborough, 793, 784.

Large Breeders. Section 2.—R. Rodwell, Nelson, 763, 775; F. Snowden, Cowling, 762, 760; M. Mart, Euxton, 710, 720.

Large Breeders. Section 3.—C. Bates, Samlesbury, 871, 912; E. Yates, Penwortham, 863, 857; R. Rodwell, Nelson, 863, 889.

Large Breeders. Section 4.—F. Harvey, Bretherton, 881, 905; R. Rodwell, Nelson, 904, 850; J. R. Welch, Bewdley, 809, 837.

Small Breeders. Section 5.—F. B. Evers-Swindell, Ruthin, 432, 435; H. Seddon, Holmfirth, 392, 417; J. and W. Purdie, Lanark, 399, 411.

Small Breeders. Section 6.—R. W. Hully, Clifton, Manchester, 283, 311; Mrs. M. B. Clay, Long Preston, 295, 310; W. A. Lansley, Whitchurch, 307, 294.

Small Breeders. Section 7.—Dr. J. E. Helm, Rossendale, 481, 477. Mrs. M. B. Clay, Long Preston, 482, 474; J. and W. Purdie, Lanark, 452, 460.

Small Breeders. Section 8.—R. Hodgkinson and Son, Culcheth, 413, 425; Col. S. Sandbach, Abergele, 362, 392; R. Rawcliffe, Goosnargh, 380, 386.

Single Bird. Section 9. Light.—A. V. Wallis, Oxford, 93, 118; W. Golden, Rugby, 109, 112; W. Rogers, Market Drayton, 102, 98.

Single Bird. Section 10. Heavy.—J. Rainford, Penwortham, 93, 109; P. G. Espinasse, Oxon, 93, 101. Gettern Model P.F., Ainsdale, 99, 99.

Juvenile Breeders. Section 11. Light.—R. Collinson, Garstang, 344, 345; Miss W. Banks, Freckleton, 302, 304; J. Collinson, Garstang, 316, 316.

Juvenile Breeders. Section 12. Heavy.—R. Gabbott, Little Hoole, 433, 422; H. Sutton, Little Hoole, 445, 426; Miss E. Barron, Catforth, 415, 408.

WYE COLLEGE COUNTIES' LAYING TRIALS, 1925-26.

Report for Fifth Period—4th February to 3rd March, 1926.

With the exception of a few days of high winds, very favourable weather conditions have been maintained throughout this period, resulting in the birds making a rapid recovery from the set-back occasioned by the weather conditions of the previous period. The flock attained a daily production of 70 per cent. before the end of the month. The number of eggs produced during the period was 3,908, an increase of 797 eggs over the previous period, and bringing the total up to date to 16,784 eggs.

White Wyandotte Pullet No. 199 died during the month, death being caused by internal hemorrhage due to a ruptured liver. R.I.R. Pullet No. 75 has been admitted to hospital. The health of the remainder of the flock is satisfactory. Ten birds are still in a moulting condition, and ten others have passed through the broody coops. The number of birds which did not lay during the period was 16, including four which have not laid since the commencement of the trials.

Appended is the summary of positions of the leading pens up-to-date. Figures are Eggs and Points respectively:—

KENT.

White Leghorns.—Dr. Harbord, 393, 3753; H. S. Godsmark, 365, 3396.

White Wyandottes.—H. M. Moore, 435 4180; F. and T. Neame, 410, 3954.

Rhode Island Reds.—Misses Jones and Atkins, 406, 3816; R. Freeland, 371, 3366.

Light Sussex.—Mrs. M. C. Cowan, 400, 3695; Mrs. M. Crookes, 380, 3411.

A.O.V. Sitting Breed.—Messrs Campkin Bros. (B.R.), 331, 2995; Mrs. M. Crookes (B.R.), 270, 2660.

SURREY

White Leghorns.—J. B. Bantoft, 424, 3975; H. A. Boxall, 410, 3903.

White Wyandottes.—H. J. Willis, 514, 4765; H. Rowntree 485, 4100.

Rhode Island Reds.—A. Kirsch, 404, 3777; A. Brown, 348, 3207.

Light Sussex.—The Burrows Lea Poultry Farm, 393, 3411. Miss E. M. McGaw, 387, 3382.

WORCESTER COUNTY TEST.

Fifth Month, from February 20th to March 20th.

Section 1. White Leghorns.—Worcs. P.F., 423 pts.; W. Pound, 407; F. R. Welch 393; Col. C. Hancock, D.S.O., 340.

Section 2. White Wyandottes.—F. Morris, 472 pts.; Mrs. Edmondson, 464; G. E Handley, 451. W. H. Hawkes, 370.

Section 3. A.O.V. Light Breed.—R. M. Voce, 328 pts.; Capt. Spencer Churchill, 320; B. Lloyd, 280; Capt. Spencer Churchill, 263.

Section 4. A.O.V. Heavy Breed.—E. Owen, 420 pts.; F. R. Welch, 396. W. P. Drew, 386; F. H. Collins, 329.

Section 5. A.V. Heavy (Single Bird).—J. Norlege, 101 pts.; Mrs. Owen, 96; J. Smith, 95; F. Heydon, 95.

Section 6. A.V. Light (Single Bird).—M. Rutter, 93 pts.; Capt. Boyle, 79; F. Heydon, 57. Major R. Lake, 51.

Section 7. A.V. Pure-Bred Duck.—Worcs. P.F., 77 pts.; Miss Hancock, 45; J. E. Loxley, 44; Malvern Ped. P.F., 43.

Production remains good; no ill-health, no deaths. feeding same as previous periods, with the exception of the leaving out of the alfalfa meal.

FOOD PURCHASE SCHEME.

From a number of letters recently received, it appears that t is not a well-known fact that grains of every description can e purchased under this scheme.

May we therefore state, that all grains, meals, grits, etc., re obtainable from any one of the depots mentioned in these olumns.

We cannot give prices here, as space will not permit, but rice lists will be despatched immediately to any member, if pplication is made to this office.

Referring to the odd cwts. which are now to be supplied under he Food Scheme, 9d. per cwt. extra will be charged on the rices already shown.

This is to cover the extra expenses and handling which the ne cwt, business involves.

If the total order amounts to 5 cwt, and over, this extra charge will not be made,

PRICES OF MASHES, ETC., PER CWT.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	11/0	11/0	11/3	11/9
F.O.R. LIVERPOOL	11/6	11/9	13/0	13/0
F.O.R. LONDON	11/6	11/6	12/6	12/9
F.O.R. LONDON	11/3	11/3	12/3	12/6
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN ...	11/0	11/0	11/6	12/3
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/0	11/0	11/9	12/6
F.O.R. SOUTHAMPTON .	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH ...	12/0	14/0	12/6	14/3
F.O.R. ABERDEEN	12/0	13/6	13/6	13/0
F.O.R. HARROGATE ...	11/6	11/6	12/3	12/9
F.O.R. GLASGOW	12/0	12/0	12/0	13/0
F.O.R. STAFFS	11/0	11/0	12/6	12/3
FO.R. SUSSEX (East) ...	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/3	10/9	11/6	11/3
F.O.R. SUSSEX	11/6	11/6	12/6	12/6
F.O.R. BRADFORD	11/6	11/6	12/3	12/9
F.O.R. BIRMINGHAM ...	11/6	11/6	12/3	12/6
F.O.R. GREENOCK	11/6	12/0	12/9	13/3
F.O.R. TEWKESBURY ...	11/9	11/9	13/0	13/3
F.O.R. BOLTON	11/9	11/9	12/9	12/9
F.O.R. MIDDLESBROUGH	11/3	11/0	11/3	12/3
F.O.R. PARTRIDGE GREEN, SUSSEX	11/3	11/6	11/0	12/3
F.O.R. HULL	12/3	11/6	12/3	12/9
F.O.R. ESSEX	11/0	11/0	11/9	14/3
F.O.R. BIRKENHEAD ..	11/0	11/0	11/3	11/9

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	17/0	14/6
F.O.R. LIVERPOOL	18/3	14/9
F.O.R. LONDON	17/0	15/0
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEICESTER	16/9	14/9
F.O.R. KING'S LYNN	17/0	14/9
F.O.R. BELFAST	18/0	16/9
F.O.R. BRISTOL	17/3	14/9
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	14/6	13/6
F.O.R. HARROGATE	17/6	15/3
F.O.R. GLASGOW	17/0	15/0
F.O.R. STAFFS	17/0	14/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	16/6	14/3
F.O.R. SUSSEX	18/0	14/9
F.O.R. BRADFORD	17/6	15/9
F.O.R. BIRMINGHAM	18/0	16/0
F.O.R. GREENOCK	18/3	15/0
F.O.R. TEWKESBURY	18/3	16/3
F.O.R. BOLTON	17/0	15/3
F.O.R. MIDDLESBROUGH	17/6	16/0
F.O.R. PARTRIDGE GREEN, SUSSEX	17/3	15/3
F.O.R. HULL.	15/9	14/6
F.O.R. ESSEX	17/9	15/9
F.O.R. BIRKENHEAD	16/9	14/9

	Per Cwt.	
Fish Meal (Pure White) ...	18/3	F.O.R. LONDON.
,, ,, ,, ...	18/3	F.O.R. BRISTOL.
,, ,, ,, ...	17/9	F.O.R. SWANSEA.
,, ,, ,, ...	17/9	F.O.R. TYNEMOUTH
,, ,, ,, ...	17/9	F.O.R. GRIMSBY.
,, ,, ,, ...	17/6	F.O.R. BRADFORD.
Special Fish Meal	17/3	F.O.R. MIDDLESBORO.'
Meat Meal	15/0	F.O.R. LONDON.
Meat and Bone Meal	13/6	F.O.R. LONDON.

		Per Cwt.
MAIZE GRITS	F.O.R. LONDON	10/6
MAIZE GRITS	F.O.R. IPSWICH	10/6
S. G. OATS	F.O.R. LONDON ...	13/0
S. G. OATS	F.O.R. SUSSEX	12/6
S. G. OATS	F.O.R. BRISTOL	12/9
MAIZE GERM MEAL	F.O.R. LONDON	8/0
MAIZE GERM MEAL	F.O.R. IPSWICH	8/0
MEAT AND BONE MEAL...	Carriage Paid	15/3
MEAT MEAL	Carriage Paid	15/9
ALFALFA	F.O.R. LONDON	11/6
,, ...	F.O.R. BRISTOL	11/6
BONE FLOUR	F.O.R. LONDON	9/6

It would be of very great assistance if members when ordering would always state station they wish goods despatched to, also their nearest depot.

SPECIAL.

We are able to offer this week a special sample of Fish Meal, with the following analysis:—

OIL	4.5 per cent.
ALBUMINOIDS	55.60 ,,
PHOSPHATES	16.18 ,,

At following prices, F.O.R., London. Under 5cwts. orders 18/9 per cwt.; 5cwts. and upwards, 17/9 per cwt.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

Merrett, W. P., Wilston House, Arlingham, Stonehouse, Glos.
Clifford, E. H., Wesberrie, King Edward's Avenue, Gloucester.
Charlton, I. N., San Remo, Stroud Road, Gloucester.
Morgan, Major, Little Elmbridge P.F., Cheltenham Road, Glos.
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Hortin, F., Findon Park, Worthing, Sussex.
Smith, S. A., Beechcroft P. Farm. Nash Grove, Wokingham, Berks.

Mercer, Richard, 4, Dairy Street, Chadderton, Oldham, Lancs.
Harris, Frank B., Wyeverne P. Farm, Hewelsfield, St. Briavels, Glos.

Shaw, Harry, West View, Meltham, Huddersfield.
Day, John, Field House, Kemberton, Shifnal, Shropshire.
Murray, D., Camden P. Farm, Ramsden Bellhouse, Billericay, Essex.

Roe, Mrs. Grace E., Glanrafon, Harrietsham, Kent.
Windle, Joseph Wm., No. 2, Northgate, Denby. near Huddersfield, York.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING THURSDAY, APRIL 1st, 1926.

GRAIN AND FEEDING STUFFS.—Small supplies of British wheat meet a moderate demand, and prices have advanced slightly at some centres, the average quotation being 11s. 11d. per cwt. Imported wheat is in fair request, and late rates are fully maintained, No. 1 Manitoba averaging 14s. 3d. per cwt. A rather better demand is reported for barley at some markets, and both home-grown and imported feeding descriptions sell at slightly higher prices. English oats mostly experience a quiet demand at late rates, while some descriptions of imported are slightly dearer on the week at one or two markets. Good supplies of maize are generally available, but prices have advanced slightly at some centres, Argentine averaging 7s. 4d. per cwt.

Milling offals and meals are in moderate demand, and quotations generally are unchanged on the week, but coarse middlings at Liverpool, owing to a dull trade, are reduced 5s. per ton. Linseed cake is quoted at lower rates at all markets, reductions ranging from 5s. to 10s. per ton being recorded, while cotton seed cake mostly sells at recent figures, but some descriptions at Hull are 5s. to 10s. per ton cheaper on the week.

MILLERS' OFFALS.—Bran (British): Bristol, £6 15s; Hull, £6 7s; Liverpool, £6 15s; London, £6 5s. Broad Bran: Hull, £7 17s; London, £7 10s. Middlings: Fine (Imported): London, £7 12s; Coarse (British): Bristol, £7 7s; Hull, ,£7; Liverpool, £6 15s; London, £6 7s. Pollards (Imported): Bristol, £6; Hull, £5 10s; Liverpool, £5 7s; London, £5 17s. Rice Bran: Bristol, £6 10s; Liverpool, £6 10s; London, £6. MEAL.—Barley Meal: Bristol, £9; Hull, £9; London, £9 7s. Maize Meal: Bristol, £9 5s; Hull, £8 5s; Liverpool, £8 12s; London, £8 10s. Maize Meal (S. African): Bristol, £8 5s; Hull, £7 10s; Liverpool, £7 12s; London, £7 2s. Maize Germ Meal: Hull, £8; London, £7 10s. Maize Gluten Feed: Bristol, £10 5s; London, £9 5s. Maize Cooked Flaked: Hull, £10; Liverpool, £10; London, £10 5s. Locust Bean Meal:, Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9 5s. Bean Meal: Bristol, £13; Hull, £11 7s; London, £12 5s. Fish Meal: Bristol, £20 10s; Hull, £19 10s; Liverpool, £18 10s; London, £18.

EGGS AND DEAD POULTRY.

British eggs show little change, but imported descriptions are generally easier. In the dead poultry section, best quality chickens sell readily and are again the turn dearer.

Week-end Prices—Eggs (per 120): British, 12s 6d, 11s 3d; Irish, 12s 6d, 12s 3d; Danish (18 lb.), 15s 0d, 14s 6d; Danish (15½ lb.), 12s 0d ,11s 9d; Dutch ,brown, 13s 6d, 13s 3d; Dutch, mixed, 12s 3d, 11s 9d; French (Normandy, brown), 13s 6d, 12s 9d; French (Normandy, mixed), 12s 0d, 11s 0d; French (Brittany), 10s 0d, 9s 6d; Belgian, 12s 0d, 11s 6d; Egyptian, 8s 6d, 8s 3d; Polish, 9s 6d, 9s 0d.

Dead Poultry (per lb.): Fowls—Surrey, 2s 1d, 1s 8d; Irish, 1s 7d, 1s 5d; Others, 1s 9d, 1s 4d. Ducks, 2s 6d, 2s 2d.

EGGS.

Per Doz.—Ashford: First, 1s 4½d; Second, 1s 3d. Birmingham: First, 1s 3½d; Second, 1s 3d. Chelmsford: First, 1s 4½d; Second, 1s 2½d. Colchester: First, 1s 4½d; Second, 1s 2½d. Doncaster: First, 1s 5d; Second, 1s 4d. Dorchester: First, 1s 1¼d; Second, 1s 0¾d. Exeter: First, 1s 1d. Hereford: First, 1s 2d; Second, 1s 0d. King's Lynn. First, 1s 3d; Second, 1s 1d. Llandilo: First, 1s 1d. Mold: First, 1s 3d; Second, 1s 2d. Newport (Mon.): First, 1s 2d; Second, 1s 1d. Norwich: First, 1s 3½d. Oswestry: First, 1s 1½d. Penzance: First, 1s 0d; Second, 11d. Saffron Walden: First, 1s 4½d; Second, 1s 3d. St. Ives (Hunts): First, 1s 3d; Second, 1s 2d. Salisbury: First, 1s 3½d; Second, 1s 2d. Skipton: First, 1s 3d. Swindon: First, 1s 2d; Second, 1s 1½d. Welshpool: First, 1s 3d; Second, 1s 1d. *Carlisle: First, 1s 4d; Second, 1s 2d. *Derby: First, 1s 5d. *Ipswich: First, 1s 4d; Second, 1s 0d. *Lincoln: First, 1s 3d. *Shrewsbury: First, 1s 3d; Second, 1s 1d. *York: First, 1s 5d: Second, 1s 4d.

FOWLS.

Per lb.—Birmingham: First, 1s 7d; Second, 10d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 6d. Llandilo: First, 1s 8d; Second, 1s 5d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Welshpool: First, 1s 7d; Second, 1s 5d. *Derby: First, †6s 3d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d. Second, 1s 3d. *York: First, †6s 3d; Second, †5s 9d.

DUCKS.

Per lb.—Exeter: First, 1s 4d; Second, 1s 2d. *Ipswich: First, 1s 4d. *Shrewsbury: First, 1s 6d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, April 7th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscription to "EGGS," 12s. 8d. per annum; 6s. 4d. for six months, 3s. 3d. three months, post free.

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Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick, Sussex.

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All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

Classified Advertisements Rates will be found at top of first page of classified advertisements.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH).

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Edited by TOM NEWMAN.
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Sittings - - Chicks

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ANOTHER TESTIMONIAL.

Scotland, 31 3.26.

The Leghorn chicks arrived yesterday and I am very pleased with them. They look very strong. You will be glad to know the Wyandottes I got on March 2nd are all alive and doing well. I have had no trouble to rear them so far, while people round about have been losing two or three a day. Everybody thinks my chicks are splendid, for the weather has been very trying this last month.—B

SANDOWN, - - I.O.W.

Eggs 6d. Chicks 1/- each.

ABEL LATHAM

having now satisfied his own requirements, can give immediate delivery of EGGS AND CHICKS at the above rock bottom prices, from his World's Record strains of

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All my stock has twenty years of heavy laying ancestry, and cannot fail to give the utmost satisfaction as layers of large numbers of large eggs which are my specialities as a breeder.

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A solution to the difficulty touched upon by Mr. Tom Newman in his Editorial of March 17th is to be found in our patented "Range Tracks" which permit moving of houses up to 125 birds capacity—every foot of ground ranged without fouling of soil surrounding houses.

Call and see Specimen Houses at BUSH HOUSE, ALDWYCH, W.C., or write:— W. H. COLT, Ltd., BETHERSDEN, near ASHFORD, KENT.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, APRIL 14th, 1926.

Editorial.

INFERTILITY.

We have on several occasions, in these columns, suggested to our readers that a very much higher percentage of fertility could be secured, where old males are used, if the spurs were pared before mating. This is a comparatively easy operation, and one is surprised to find that so many breeders neglect it, with the result that a second-season male is often under-mated—or rather, we should say, is not given so many hens as he should have; and many valuable breeding males are discarded after their second season because it is believed that they have become sterile, or would be so inactive as not to fertilise the eggs until very late in the season.

The following extract from a letter in connection with this point, from Miss Winifred Smith, is of interest:—

> "I removed the spurs of a R.I. Red cock on the advice given in 'Eggs,' and am now getting 13 strong chicks from 13 eggs time after time, and never less than ten, and he is turned three years old. That is better than he gave last year and the year before, when he had the spurs."

Dr. Cannarsa, the great Italian biologist, records that, having periodically clipped the spurs of an old breeding male, after its **fifteenth** year he observed that every spring succeeding the operation the propagative instinct was re-awakened in this old breeder, and, what was more remarkable, there was a return of fecundity, so much so that it appeared justifiable to preclude any doubt as to the existence of relationship between the length of the spur and the function of the sexual gland.

This is a case which may be regarded as most exceptional, as we do not often find males which survive until their twentieth year, but we may safely conclude that the breeding life of a good male would be prolonged if this simple operation were more commonly practised, and there would not be such serious complaints of infertility as there are at the present time.

During the past few weeks several lots of eggs have been sent us in which the percentage of infertility was very high. In some cases as high as 70 per cent., and in one case, in a 100-egg incubator, not a single chick was hatched, it not being discovered until the period of incubation was over that all the eggs were infertile. It is the cause of infertility with which we are concerned.

The mating of immature males is probably the most prolific cause of the trouble, but there is no doubt that the reproductive organs of very precocious males are often not fully developed, and these birds fail to fertilise the eggs, or the fertilisation is so weak that the germs perish during the first week of incubation.

Precocity is encouraged if the sexes are not separated with the light breeds, as soon as they can be detected, and many breeders do not realise the permanent mischief which is done to young male birds if they are allowed to run with pullets before they are mature.

Exposure to cold winds will often badly affect fertility. This more particularly applies to the light breeds.

Dubbing is strongly recommended. Even in the South a period of severe frosts will often cause infertility while it lasts. It should not be forgotten that the comb and wattles are the secondary sexual organs, and a "dubbed" male is not nearly so easily affected by climatic conditions as an "undubbed" one. Dubbing is a very simple operation, and saves much loss and disappointment, particularly in the early part of the season.

There would appear to be a tendency on the part of very highly-fecund dams to produce males which are sterile. It is not suggested that because a bird is highly fecund that she will necessarily produce sterile sons, or that there is a direct connection between high fecundity and sterility. This may appear contradictory. The explanation is probably to be found in the inherited precocity of very highly-fecund stock, which in many cases prevents the full development of both the body and the reproductive organs.

In-breeding, it is almost unnecessary to say, has been suggested as one of the most prolific causes of infertility, but this is scarcely correct. In-bred stock are often as fertile as stock which are neither in-bred nor line-bred, and the trouble more frequently arises because there is low fertility before in-breeding commences. When this is the case, it becomes accentuated. Naturally where there is any lack of vigour, in-breeding would affect fertility. If vigour and fertility were the primary factors in selection, we should probably hear less of the evils of in-breeding.

We have never advocated in-breeding or line-breeding where egg production is the object in view, and, though we have here spoken of the selection for vigour and fertility, we must always bear in mind that the first signs of lack of either cannot be detected from the external characteristics.

As to the effect of environmental conditions upon infertility, more particularly feeding and lack of exercise. If a ration which is conducive to internal fat is fed, it would result in low fertility, because it will cause fatty degeneration of the essential sexual organs, and the same remark applies to birds being kept without exercise.

MR. HECTOR MORISON AND CHICK MORTALITY.

In March 31st issue of "Eggs" we ventured to append a footnote to a letter from Mr. Morison, suggesting there was some mistake in his statement that his chick mortality over a period of eleven years averaged only 13 per cent. We have received the following letter from Mr. Morison :—

Leckhampstead, April 1st, 1926.

"Dear Mr. Newman,—I feel I must at once reply to your query as to my seriousness in stating that my chick losses over a period of eleven years only amounted to 13 per cent.

When my attention was drawn to your query, I at once saw how absurd the figure was, and on referring back to my records I found that I had inadvertently taken the figure of one year as covering a period of eleven years. It was extremely careless of me not to have detected the error before sending it on to you.

I am still hoping that some day you may be able to make a personal visit to this farm.

Yours faithfully,
HECTOR M. MORISON."

"DAILY MAIL" EGG-LAYING TEST, 1925-26.
HELD AT BENTLEY, SUFFOLK.

REPORT FOR FIFTH MONTH (8th Feb. to 7th March, 1926).

A substantial improvement in egg production is to be reported for the fifth month; the record of eggs for that period rising to 10,317, from the previous month's figure of 7,074. The rise was steadily maintained throughout the period; the collection on the first day of the month was 333, and on the last day 483 eggs.

The average production per bird of the pure bred hens was 10.32; of the first cross hens, 14.19; and of the first cross pullets 13.30 eggs.

Some good pen scores were made in all the sections. In the pure bred hens sections the highest was made by White Wyandottes, with 118 first grade eggs. In number of eggs this was beaten by Rhode Island Reds' total of 123, but seven of these were second grade.

Amongst the first cross hens White Leghorn x White Wyandottes did best with a score of 121 eggs, only one of which was below the 2oz. standard. Of the first cross pullets Rhode Island Red x Light Sussex and Rhode Island Red x White Leghorns tied for the most points, with a score of 138 eggs each.

The Prince of Wales' pen of Australorp x Rhode Island Red retained the premier position in Section 6, notwithstanding its

(Continued at Foot of Next Column).

Something about the Fancier.

By J. STEPHEN HICKS.

Towards the end of July (though in some cases a month earlier—this depending upon the luck of the season, or perhaps management would be a better word) the fancier breeder begins to wake up, as it were, and inaugurate his campaign of showing.

At this time of year, as may be imagined, he has not available a great number of birds in first-rate condition. Adults are naturally in poor feather on the whole, while young stock are scarcely ready. Moreover, it is the professional teamster—already alluded to in our opening remarks—who makes a speciality of catering for the summer events. Hence our particular friend does not probably worry very much about the earlier shows, unless he has (1) two or three oldish hens, late moulters and specially reserved since that event for this purpose, or (2) an extra early lot of young stock, practically "finished" by July, and of which the most must be made at once, as they will very soon be past their prime and superseded by later birds of better quality and staying power. At this juncture it will be best to break off for a while in order to explain—if that be necessary—that showing is to the fancier an essential method of advertisement. Taken by itself it is almost bound to entail something of a net monetary loss, all details considered, but the buying public is an extraordinarily keen student of names on show catalogues and press reports. (There is, also, this much about it, that it is practically impossible for

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heavy handicap of two dead birds, and still holds a lead of 37 eggs.

A highly satisfactory feature of the test is the good average size of the egg; the proportion of first grade reaching the high standard of 96.04 per cent.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs and Points respectively: —

Section 1.—Leghorns—Any Variety (7 Hens.—Balsham Manor Farm, Cambridge, 470, 412; R. A. and A. M. Johnson, Chalford, Glos., 374, 360; Mrs. Heber-Percy, Hodnet, Shropshire, 317, 316; Col. G. O. Spence, Kirklevington, Yarm-on-Tees, 322, 313.

Section 2.—Wyandottes—Any Variety (7 Hens).—A. K. Speirs Alexander, Roughton, Norwich, 383, 382; W. and T. Salt, Enderby, Leicester, 387, 382; A. Hughes, Malpas, Cheshire, 364, 359; H. D Barley, Kings Norton, Birmingham, 356, 350.

Section 3.—Rhode Island Reds or Light Sussex (7 Hens).—B. A. Wolryche-Whitmore. Stamford, 343, 338; Edward Beer, Hadleigh, Suffolk, 315, 308; Major G. T. Williams, Perranwell, Cornwall, 297, 296; A. A. Plimpton, Beverley, E. Yorks, 294, 291.

Section 4.—Any Other Breed (7 Hens).—Wm. Hamnett, Blackpool, 307, 304; P. Mills, Bishop's Castle, Salop, 247, 246; Capt. H. C. Mackenzie, Eddington, Herne Bay, 235, 233; A. Mansell, Thame, Oxon. 234, 231.

Section 5.—First Cross Hens competed in "Daily Mail" Test, 1924-25 (7 Hens).—P. E. White, Market Drayton, Salop, 444, 431: H. Sutton and Sons, Little Hoole, Preston, 420, 413; Warwick Rogers, Market Drayton, Salop, 371, 361; Sydney Smith. Clifton, Nottingham, 360, 359.

Section 6.—Any First Cross (7 Pullets).—H.R.H. The Prince of Wales, Duchy of Cornwall Farm, 552, 549; Albert V. Wallis, Clanfield, Oxford, 525, 512; A. Mansell, Thame, Oxon, 589, 479; Marcus W. Slade, High Wycombe, 459, 454.

any exhibitor to make mis-statements about his wins.)

Again, the aforesaid buying public is as ever extremely fickle, and it is useless for any fancier, not yet having secured an unassailable reputation, to imagine that he can rest on the laurels gained a season or two back. There may be a few—but only a very few—old hands who can afford to stand aside for a season, but even they find that the volume of business done will sink appreciably should they do so for longer than this. The gossips will soon be saying, "What's Blank doing lately? I hear he's bred nothing this last year or two," etc., etc.

Others may decide to confine themselves to one or two of the classic events—e.g., the Dairy and Palace—and this is well enough, provided they can be sure of gaining a creditable position there, but since the competition is so keen and there is only one first per class ——?

The average man under discussion will, then, probably try out a few birds in the late summer, and if he has been usually successful with his chickens, will start showing them in earnest from September onwards for the next two or three months, patronising perhaps a dozen to fifteen events during the season. Much has been written and many unfavourable comments made upon the artificiality and harmfulness of the life of a show bird, and, of course, there is the usual grain of truth in such statements. In the hands of novices, and, maybe, the "teamster," some birds certainly do get "shown to rags," after which nothing but a long rest can restore them to full productive vigour. On the other hand, there is no reason to suppose that three or four outings in a season can do any particular harm to a bird in good condition, and it is probable that the man we are discussing does not exceed this. He is, as a rule, exceedingly careful of his stock, and in point of fact should he intend to breed from any particular show bird will generally withdraw it from competition a month or so before the pens are mated. Thus we often overhear, "Hullo, Jones, where's that bonny cockerel you had at the Dairy?" "Oh, he's not coming out again this season. I want him to head my best pen." In addition to this, pullets have a way of moulting after a few turns, especially if shown in warm weather, when of course their condition makes a further outing useless. Finally, since this same condition is almost half the battle in competition, and no amount of "treatment" will serve to emulate the glowing vitality of perfect health and absolute cleanliness, a good idea can be obtained that more often than not a big winner is actually the most perfectly fit fowl it is possible to find.

Doping, or the administering of tonic pills and the like to show stock, **may** be practised by some of the knowing ones in order to keep some old stager of a hen on her legs for another show or two, but it is most emphatically not the custom of our fancier-breeder to use any secret preparations of any kind. Nor does it necessarily follow that the show birds and the breeding stock are one and the same. Many a fancier would tell you if you could get on the right side of him that he never exhibits his breeding stock on principle—or at any rate not in the same year—while the majority of others, as has been indicated, will almost invariably "nurse" the few really choice birds they have earmarked for their own breeding pens later.

Quite apart from this, there is also the fact to be considered that in many varieties the intricacies of mating, and the hardly understood mysteries of blending the sexes in order to produce the wonderful colour and markings seen in the show pen, often demand the use of birds as breeders not in themselves show birds at all. This subject alone is so complicated that we must not attempt to go further into details, every variety needing a separate treatise, but the point to be made is to show that, all things considered, the fancier-breeder's pens certainly do not contain a mass of enervated aristocrats; maybe 10 per cent. of the whole have seen the inside of a training pen.

Before dismissing the subject, it may be as well to touch upon the question of fraud and faking in connection with exhibitors and exhibiting—the more so because there is a very definite superstition among the uninitiated that it is impossible to succeed without descending to more or less dirty work of one kind or another.

Whatever may have been the case in the past—say, in the previous century—this state of things most emphatically does not exist to any appreciable extent to-day. Public opinion and the good work done by the Poultry Club see to it that the best birds win on the whole. Occasional mistakes and differences there are, and always must be, in judging, since no two people's ideas coincide exactly on every feature and its relative importance, and no doubt there are a few black sheep still in the fancy fold (as in any other). Nevertheless, there are scores of critical eyes watching the result of judging at every show of any importance, and a palpable "mishit" is noticed at once, while any attempt at faking would, if the exhibit scored, probably soon be detected by the other exhibitors immediately concerned. In point of fact, the great majority of recent cases of alleged faking prove to have been the work of more or less ignorant recruits to the fancy.

In any case it is an indisputable fact that, given the requisite quality in his stock and knowledge as to how to show them, nothing on earth could prevent the veriest tyro from being as successful in the show pen as anybody else. Naturally enough, such a combination of circumstances is extremely rare, but that does not affect the soundness of the argument.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

THE AGE OF THE MALE AND SEX.

It has been so frequently stated that the mating of a second-season male to pullets will produce a higher percentage of pullets in the progeny than if a cockerel was mated to second-season hens, that the following is interesting. It is a question which has been put to me by a member, who writes :—

> "There is one other question I would like your opinion about. Last year (1925) I made up my pen of Leghorns—15 pullets mated to a two-year-old male bird, and found about 75 per cent. cockerels, while this year I mated up 15 March pullets to a February-hatched cockerel with the same result, and the little things of three weeks old look ready to crow by the size of their combs."

This is interesting from two points of view. In the first place we have fifteen pullets mated to a two-year-old male, and 75 per cent. of the progeny were cockerels.

We have been told by many breeders that we get a higher percentage of cockerels if the male is mated to a small number of hens than we do when he is mated to a large number. Over and over again I have proved this to be incorrect, and I have also found that I get quite as many cockerels when mating a second-season male to pullets as when mating a cockerel to hens. The riddle of "sex" is as far from a solution as ever.

Recently we have heard of a Blood Test, and this is spoken of as being of practical value to breeders. Particulars are given below :—

A NEW BLOOD TEST.

DETECTION OF SEX.

PRACTICAL VALUE TO BREEDERS.

(By a Scientific Correspondent.)

A really efficient and simple test for discriminating between male and female blood appears at last to have been found, and is expected to be of considerable utility to poultry breeders and experts in genetics. It has been devised by Dr. Dewey G. Steele and Dr. Agnes Zeimst, of the University of Wisconsin. It has been applied to the blood of cattle and birds, and appears to work as well in the case of human beings.

In an accuracy trial twenty pigeons were placed in their proper category out of twenty on whom the test was made. Of seventy-seven fowls sixty-three were ranked correctly, and with seventeen head of cattle there were no errors. The test is said to be particularly accurate with regard to poultry, as the feathers have been found to give an additional reaction.

"Using this criterion of sex poultry breeders can kill off the useless males early in life," said Dr. Steele in an interview. While emphasising the fact that the technique is still in the laboratory stage, Dr. Steele indicated that the test might be of use in criminology and in revealing the sex of unborn children. It may also further biological investigation by showing changes in the blood due to the transplantation of glands.

The procedure in the case of cattle consists in adding hydrochloric acid and an oxidising solution to a test tube sample of blood serum, diluted 100 times, of the animals to be examined. Four drops of methyl green dye are then introduced, whereupon the serum taken from females gives a green colour, and that obtained from males a red.

A laborious test of sex, requiring several chemicals and complicated by a time factor, was invented some time ago by a Russian geneticist, Manoilov, and is being used in Russia with some success to forecast the sex of unborn children. Steele's test, however, has the advantage of simplicity, and is in all probability a more certain one.

Opinion in this country is on the whole in favour of Dr. Steele's claim, especially as the University of Wisconsin has turned out some very satisfactory biological work in recent years.

Whether it will have the practical value which is claimed for it by Dr. Steele remains to be seen, but we have heard a little too much of this killing off of useless males early in life for it to make any great appeal to us at present.

A far more important question for us is the production of a male which we can rear and sell profitably.

B.W.D.—THE AGGLUTINATION TEST.

The Council will consider at its meeting this week the following resolution, proposed at the General Meeting by Mr. P. S. Campbell, and seconded by Dr. Rosedale, on behalf of the Wadhurst Branch :—

> "That all breeding stock on a farm which carries registered pens should have passed the Agglutination Test. The condition and time of testing to be settled by the Council of the S.P.B.A."

I may say here that this has not been done before because it has been thought advisable to obtain a little more evidence as to the Agglutination Test before any decision was arrived at, and certainly the delay has been justified, as we have gained some valuable information during the past breeding season. It is perhaps unwise that I should express an opinion upon the subject here.

Many readers are complaining to me that they have bought eggs and chicks from blood-tested stock, and still serious losses have occurred through B.W.D.

Far from condemning the test, I would only speak very favourably of it, not on account of these losses, but because of the data which I have been able to collect which demonstrates that it is of very great value. We cannot claim for it that it is absolutely reliable ; indeed it is not, for the test to give really good results it must be made more frequently than has usually been done.

On the question of making it compulsory to members to have their stock Blood Tested which they wish to register, I am not prepared to express an opinion ; that is for the Council to decide, and they will no doubt act upon the advice of the Committee which will be appointed.

MAGGOTY EGGS.

The following has been sent me by a correspondent. The concluding paragraph is illuminating :—

> "The Bench considered it a very bad case. They fined the defendant £5 and costs."

Whatever hope is there that we shall be able to organise the Marketing of Eggs if such a flagrant case as this is treated so lightly, and the offenders can get off with a fine of merely £5?

The price paid for the eggs (3/1 per dozen) was such as should entitle the buyer to a sound article. As the inspector said, "The sale of bad foods gives the market a bad reputation," and others who sell in that market suffer from one man's conduct, and the reputation of the English egg still more suffers.

MAGGOTY EGGS.

A GREYSOUTHEN DEALER AT CARLISLE MARKET.

"A MEAN OFFENCE."

Joseph Coulton, of Greysouthen, Cockermouth, was summoned at the Town Hall, Carlisle, for having had in his possession and sold to Janet Stedman, at the Carlisle Public Market, 188 eggs which were unsound and unfit for food—Mr. Oglethorpe, of Keswick, appeared for the defendant.

Mr. C. W. Hill, Sanitary Inspector, who prosecuted, said on October 24th Mrs. Stedman, a shopkeeper in London Road, went to the market for the purpose of buying eggs to sell in her shop. The defendant told her he had 27 dozen eggs for sale. She asked him if the eggs were fresh, and he replied that they were. She paid him 3s. 1d. per dozen, the wholesale price. Mrs. Stedman did not examine the eggs at the time of the purchase. When she came to take the eggs from the market a short time afterwards she found some of the eggs rotten and maggoty. She informed the Market Inspector of the circumstances. Mr. Hill said that this was a particularly mean offence, as bad eggs were not readily detected, and any person who bought eggs was more or less at the mercy of the vendor. The sale of bad food gave their public market a bad reputation, and he asked the Bench to inflict such a penalty as would deter defendant and others from carrying on this trade.

Mrs. Stedman, in her evidence, said that had the eggs been circulated among her customers they would have done her considerable injury. Witness had bought eggs from Coulton before, and they had not been satisfactory.

Inspector Hill said that he tested the eggs and found that 37 were black rotten, 95 were putrid, and 56 were in such a decomposing state as to be unfit for food.

Defendant stated he was a dealer in eggs, butter, and rabbits, and occasionally came to the Carlisle market. He bought eggs from different people, but did not test them. People in his position bought eggs on trust. He did not notice that any of the eggs were bad.

Henry Coulton, of Workington, brother of the defendant, stated that he sold some eggs to his brother, and these were in good condition. He heard his brother had bought other eggs in the market, which were not sound.

Mr. Oglethorpe contended that it was impossible for a consumer not to know that an egg was bad, and in that case there was no danger of it being consumed as food. The case ought to have been taken to a Civil Court and not a Criminal Court.

The Mayor said the Bench considered it a very bad case. They fined the defendant £5 and costs

Mr. Irving, who sent me this report, stated that a friend of his showed him an egg which his wife had boiled for his breakfast, containing a fully-developed chick, bought from a farmer's wife in the same market. It would seem as if an inspection of this market was badly needed, and that the Ministry of Health might be requested to take steps to ensure sound food being sold to the public.

BERKSHIRE EGG-LAYING COMPETITION.

Report for the Fifth Period—February 4th...March 3rd, 1926.

There has been a strikingly increased egg production this period, the number of eggs laid being 3,416 (an increase of 1,124 over last period) as follows:—1,964 special, 763 first ,668 second grade, and 21 non-scoring eggs, and the improved weather conditions, with a somewhat higher temperature, may be the reason.

The number of eggs per bird produced was 17.61, as against 11.8 for the previous period.

Light breeds averaged 17.3 eggs per birds, and heavy breeds averaged 17.6 eggs per bird.

Two birds have as yet to lay their first egg.

The highest number of eggs produced on any one day was 140 (February 26th), and the lowest 102 (February 6th).

All birds are looking remarkably healthy and active, and no signs of disease or ailments of any kind have appeared, and it is noticed that with the increase in egg production the birds are more eager for their feed, and rather more is now being consumed.

There has been one case of broodiness (bird 239). Bird 186 has had a slight neck moult, and bird 219 a partial moult.

Bird 222 still leads for the highest individual bird score, having laid 97 eggs, 71 being Special Grade, 19 First, and 7 Second Grade eggs.

The scoring during the period was as follows:—Two, Seven and five points respectively for Special Grade eggs (2 2-16ozs. and over); First Grade (2ozs. and over, but under 2 2-16ozs.; Second Grade (1¾ozs. and over, but under 2ozs.). Eggs weighing less than 1¾ozs. are not pointed.

Below is given the leading pens or birds, as the case may be, in each section. Section 1, the first and second positions are reversed. Sections 2, 3, 4, 5 and 6 remain the same as for last period. There are other changes in the lower pens.

Section 1. Poultry Farmers (Light Breeds).—Capt. P. Washington, Wokingham (W.L.), 2450 pts.; N. A. Ramsden, Hinksey Hill (W.L.), 2409.

Section 2. General Farmers (Light Breeds).—Admiral Clifton Brown, Faringdon (An.), 2415 pts.; C. E. S. Gillett, Wokingham (W.L.), 2253.

Section 3. Cottagers (Light Breeds), Single Birds.—J. Wentworth, Uffington (W.L.), 634 pts.; B. Butler, Newbury (B.L.), 416.

Section 4. Poultry Farmers (Heavy Breeds).—Capt. D. W. Gunston, P. Spencers' Wood (W.W.), 3575 pts; L. Brummell Smith, Embrook, Wokingham (W.W.), 3247.

Section 5. General Farmers (Heavy Breeds)—W. H. Gore, Hungerford (W.W.), 3539 pts.; Capt. T. Allen-Stevens, Faringdon (W.W.), 2720.

Section 6. Cottagers (Heavy Breeds), Single Birds. — Miss Hayrow, Shaw-cum-Donnington (Crd. Lang.), 906 pts.; J. Rackstraw, Mortimer (R.I.R.), 564.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) **can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter.** These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. **Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).**

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

M. D. D. (Newcastle). If you purchased a cockerel and he failed to fertilise the eggs, then you have a perfect right to demand that the breeder should replace him or compensate you. If you took such case to court, you would win the day—that is, supposing the breeder could not prove it was due to any mismanagement on your part, and allowing for the eccentricities of the law. (2) I don't understand why the expert told you to use a higher percentage of fish than of meat meal. Are you quite sure you understood him correctly? The average sample of fish meal has a higher protein content than the average sample of meat meal, and in my opinion you are using 7½ per cent. too much.

C. A. (Staffs). The chicks in nine of the eggs all died between the seventeenth and nineteenth day, in the remaining three the yolks were broken. I could find nothing to indicate that anything had occurred during incubation to account for this state of affairs. As the eggs were put in with the machine running at 100 degrees, and were allowed to take up the heat very slowly, we cannot attribute the broken yolks to overheating at the start of incubation, and we must believe the stock birds are at fault. In the remaining nine eggs the chicks appeared to have developed normally, there was no indication that there was an excess or lack of moisture. You are sure the thermometer is correct, and that nothing abnormal occurred during the period of incubation. I suspect that you have a few hens which do not lay very hatchable eggs. (2) As an all-round breed I do not think you can beat the Sussex; it would be more suitable for your purpose than the Rhode Island Red.

Samples (Notts). This is a very good sample of mash at 15/6 per cwt., but your corn merchant is surely "telling the tale" when he says he is selling it at a loss. The ground oats are not Sussex ground; they would answer the same purpose, and at 14/6 are fairly good value. The fish meal at 24/- is an inferior sample, containing an excess of oil, and is not fit for poultry feeding; it would taint the eggs and cause digestive trouble. Your friend, who says that poor hatchability is caused when fish meal is fed, is talking nonsense, and he probably knows it. (2) I would not give hard-boiled egg to young chicks, how can it be their "natural" food, nothing very natural about a hard-boiled egg, is there? The chick has all the egg food it wants when it absorbs the yolk just before it leaves the shell. Your description of the intensive house is very interesting, and the design excellent, but I think you should have more light on the floor. You could put glass at the back below the dropping boards. The nest boxes, too, should be raised a little, otherwise you are more likely to get an outbreak of egg eating. I think the droppings boards are essential, manure pits would not answer in this house. As you can't spare the time to clean the dropping board every day, run a three-inch batten round, and cover the board with peat moss litter, rake this over in the morning, and you can safely leave it for six weeks or so.

Bitten (Portsmouth). Well, I do think you are like the little boy who wasn't happy until he caught the wasp, and wasn't happy when he caught it. You were advised not to send to this man, and didn't it occur to you that the East End of London is not exactly the place where you would buy "gold medal strains"? However, that won't help you now, and I cannot help you, except to advise you to send the birds to the nearest market to sell for what they will fetch. Your idea of buying day-old pullets is an excellent one, and the advertiser whom you name is quite reliable. You have not accommodation for more than four dozen. If you get these by the 21st of this month they should be laying in October.

Leg-Weakness (Kirkham). You might try the effect of adding two teaspoonfuls of cod liver oil to every pound of mash, but I think the leg weakness which you describe is due to a different cause, and, if not actual disease, is due to debility caused by the conditions under which you are rearing the chicks. It would be far better to rear them altogether intensively, and another type of brooder would be advisable. To be perfectly frank, your conditions are not suitable for breeding stock, and your best plan would be keep laying pullets intensively, and rear a number of sex-linked pullets, which you could obtain as day-old chicks, on the same system to replace them each year. The cross I would recommend for your purpose would be the Black and Cuckoo Leghorn. (2) The alfalfa meal is a very good sample, but the clover is inferior, and would be dear at any price.

A. E. (Shrewsbury). The hen you describe as "walking like a duck" is what is known as "down behind." The trouble is due to weakness of the abdominal muscles; nothing can be done, she is otherwise quite healthy, and there would be nothing against boiling her. She may continue to lay, and her eggs would be quite all right for eating. This is not a case of "layers' cramp," as you surmise. (2) If you have mated the Light Sussex pullets to a Leghorn cockerel this year, there will be no "taint" of the Leghorn in their blood; if mated next year to a Sussex male, the progeny would be pure Sussex. (3) I know of no book on Line-breeding, and hardly see the scope for one. Success in line-breeding is not a case of how close can one go, but of the selection of the individual and one's powers of observation.

Gapes (Millwest). In answer to your query re Gapes, I am replying to it in full, as it will answer several other readers. It is almost impossible to deal with the trouble successfully while the chicks remain on ground which is infested with the pest. Yet it is futile, or seems so, to advise removal to fresh ground when you have a fixed brooder house with 500 chicks running out, and equally futile to advise dipping a feather in turpentine and extracting the worms in this way when you are dealing with scores of chicks daily. Eggs develop in the female worm while in the windpipe of the chick, and these may be coughed up by it or scattered in the excrement. The young worms live a long time after hatching in the soil, and are sometimes taken into the digestive tube of earthworms, so that we can understand why ground on which chicks are reared year after year may become badly infected. When the ground is known to be infected, chicks should not be let out early in the morning, or when the dew is on the grass, or there is hoar frost, or after rain. Those which show symptoms of the trouble should be moved to a separate coop or placed in a box with lime on the floor, and given in the drinking water 15 grains of salicylic acid or 12 drops of turpentine to the quart. I do not believe in subjecting chicks to the fumes of either sulphur or tobacco in a closed box, as this leads to disaster very often. A member of the S.P.B.A. was once successful by enclosing the chicks in a newly-creosoted box, and I have used with success two parts by weight of powdered chalk and one of powdered camphor. The chicks are placed in a box, and this is dusted in while they are confined, until the box is full of the dust. With regard to the treatment of infected land, this is very difficult, especially when it is not well drained. It should be thoroughly limed and ploughed, and rested for two years. Again, this is futile advice in the majority of cases, but what can one do? Perhaps a more practical suggestion for small runs is soaking the soil with a one per cent. solution of sulphuric acid. Turkeys harbour the gape worm, although they very seldom exhibit symptoms. For this reason it is a very bad plan to rear young turkeys and chicks together.

W. (Herts) has heard that there is no fowl which grows to such a large size as those hatched in November and December. His idea is that if it is the case that such a fowl grows to a larger size than those hatched in February and March, then as much as possible fowls intended for breeding should be hatched in these months. If it is a fact, it helps to solve the high fecundity and small-egg problem. He would be obliged if I would give my opinion on the above in these columns. I cannot say definitely that a November or December hatched bird would grow to a larger size than one hatched in March. I think we want more evidence on this point. It is possible and even probable, because the environmental conditions would tend to render sexual development more slow, and the later the birds mature sexually the greater their bodily development. If such is the case, it would, as my correspondent suggests, do something to solve the problem of high fecundity and small eggs, but there will be some "snags" which he has apparently not considered.

Worried (N. Devon). Please note chicks should not be sent to me for post-mortem examination. At the head of this column it is stated every week where they should be sent, and this notice has appeared for some years now. Your losses are due to a very badly-ventilated brooder. When chicks "sweat" to this extent you may be sure the brooder is at fault, and the mortality will be very high if you continue to use it. It has nothing whatever to do with the feeding. The sample of biscuit meal you send is a good one, and the system of feeding, although it differs from that advocated in these columns, should rear good chicks. You must not blame that, it is the brooder that is at fault. (2) The feathers you send with the clusters round the quill are not from hens suffering from depluming scabies, alluded to in these columns a week or two ago; the trouble here is lice, and you should treat with sodium fluoride. Well, you must cheer up and peg away; we have all been through these little troubles. Experience is the only thing that goes a little way towards bringing us immunity, but that isn't so with everyone.

New Reader (Durham). Thanks for your appreciation of "Eggs." Now as to these chicks huddling. There does not appear to be any indication of disease, and the temperature you are running the brooder is high enough, but what of floor draughts? That seems to me the most probable explanation; indeed the only one, and I think if you were to look for them you would find them. The one blown up like a balloon was suffering from Ephysema. In such cases the lungs are generally affected, and, although you may give temporary relief by pricking the skin with a needle, which will allow the air to escape, my experience has been that such chicks do not reach healthy maturity. If you want a breed to "cultivate" yourself, why not try the Red Sussex, or the Buff Leghorn, or the White Rock? It has always been a mystery to me that people who run poultry as an interesting hobby don't take up breeds which are not kept by everybody.

U. M. (Wexford). The hens are suffering from what is known as "limber-neck." This is partial paralysis of the muscles, and is generally caused by eating putrid food, particularly animal food. Had they an opportunity of picking up any putrid meat? As a rule, if a dose of Epsom salts is given at once, the birds will recover. I am afraid you have left it too late to do much good with them now. (2) The Game-Orpington cross will give you a first-class but rather slow maturing table fowl; as layers the pullets will be very poor. I think for your purpose a Houdan Orpington would be the better proposition. (3) The article to which you refer, "Duck Rearing on Dry Mash," was one of the articles which appeared in the Annual Register of the S.P.B.A. I cannot repeat it here, you may obtain a reprint of the articles which appeared in the Register from these offices, price 1/6 post free.

THE "SERIAL" LAYING TEST.

Results for the Fourth Lunar Month ending February 3rd, 1926.

The total egg output for the 28 days was 5,204 (an increase of 317 eggs over last month), and giving an average of 14.45 eggs per bird.

Night frosts and wet days marked the opening week, followed by a reutrn of severe frost and snow for the second week; culminating in a fortnight of almost continuous rain. No birds have shown broodiness in this period.

One death has occurred this month, making a total for the four months of six only, an average of 1.63, which is very good considering the exceptionally severe weather experienced.

The Silver Medal (or spoon), for the best pen score for the 16 winter weeks, is won by Pen 55, White Wyandottes (R. A. and A. M. Johnson), with a score of 451 eggs, weighing 898.1ozs., value £5 6s. 5½d., an average of 75.16 eggs per bird.

The Silver Medal (or spoon), for the best individual bird score for the 16 winter weeks is won by bird No. 17, Light Sussex (F. C. Tomlinson), with a score of 99 eggs, weighing 209.6ozs., value £1 4s. 3d. This bird did not commence to lay until October the 26th, and then laid 99 eggs in 101 consecutive days, only three of which weighed under 2ozs., and these were only one-tenth of an ounce under.

Rhode I. Red Section (Six Pullets).—Mrs. E. Gossage, 372 eggs; Mrs. D. E. Greenslade, 305; J. W. Potts, 292; Mrs. E .Lilley, 261; N. S. Robinson, 257. Tansey Bros., 219.

Exhibition Standard Bred A.V. (Six Pullets).—E .W. Thomas (La. Br.), 259 eggs; Major G. L. Mundy (L.S.), 190; Mrs. W. W. W. Butt (Bf. Rks.), 177; S. Outhwaite (Ex. L.), 175.

White Wyandotte Section (Six Pullets).—R. A. and A. M. Johnson, 451 eggs; Mrs. E. Lilley, 375; H. Lee, 361. Mrs. M. Crookes, 358; F. C. Tomlinson, 360; W. Virtue, 344.

White Leghorn Section (Six Pullets).—Capt. F. C. Colings, 367 eggs; F. C. Tomlinson, 357. W. Mason, 345; R. A. and A. M. Johnson, 345; J .Mason, 296; F. and T. Lumb, 280.

Black Leghorns Section (Six Pullets).—Capt. N. Zambra, 281 eggs; F. C. Tomlinson, 249; N. S. Robinson, 179. W. Beattie, 140.

Any Other Variety (Six Pullets).—F. C. Tomlinson, 404 eggs; T. Leyson, 305; S. H. Brooks, 273; Capt. N. Zambra, 257.

Small Breeders' Section (Single Bird). Any Variety Heavy Breed.—Mrs. W. Thompson (Bf. Rk.), 97 eggs; T. J. Macmillan (R.I.R.), 94; W. M. Brown and Son (W.W.), 82; Mrs. E. Parker (Bf. Rk.), 71; Major G. Mundy (L.S.), 70; Mrs. W. Thompson, (Bf. Rk.), 74.

Small Breeders' Section (Single Bird). Any Variety Light Breed.—C. Gresley (W.L.), 65 eggs; J. W. Bordman (B.L.), 66; J. Hart, (B.L.), 65; C. Cummings (W.L.), 57; J. Cragg (W.L.), 52; A. Ogden (B.L.), 51.

How Mr. Toovey's Farm was Saved from Roup.

By Charles Nicholas.

Mr. Toovey's appreciation of this treatment, written by him during its 53 days' use, from 6th May to the 29th June, 1925, is shown by his pen :—

May 27th, "Eggs" (page 357).—The losses must run into hundreds of pounds; if the farm is doomed, the capital losses will amount to thousands—the cause is summed up in one word "Roup." If any set of poultrymen should be familiar with Roup, it is myself and my poultrymen. End of January is was reported to me; hospitals to hold 500 were constructed, but the disease spread from flock to flock—growths in mouth, throat, scabs and pustules on the comb; face and eyes; the mortality increased week by week, from 17 in week ending February 7th to 209 in week ending May 9th. Altogether I have lost 1,600 up to May 23rd. . . . . I took all the advice I could get, professional and otherwise, but none could help me. . . . . the whole flocks must have been saturated with sulphur, copper and iron. A small poultry farmer introduced me to a specialist who, he said, had cleared his farm of the curse. This farm is now in the hands of this gentleman. . . . . The cases are milder and succumb more easily to treatment, the remedies act on the growth in the mouth very effectively. . . . . removal very easy compared with before.—If he succeeds he will have found out something of such value that cannot be estimated.

June 17th, "Eggs" (page 402).—Progress made during the last fortnight has been on the whole favourable. The indications now are that we shall save the farm at a cost of about one-third the birds. . . . . I feel quite sure the disease can be cured, although at one time I thought we were down and out for good.

July 1st, "Eggs" (page 11).—I have many hundreds of cured birds. They quickly recover and are soon in full lay.

After the above was written. On the 27th June the daily records posted in the hospitals by the farm staff on 6,200 stock when totalled for the 53 days proved :—In hospital :3,641. Cured out : 1,777. Dead : 1,082. Partly cured : 782. The 800 section is not recorded here.

It took six men 24 days to create 19 hospitals and collect 2,849 infected birds from stock of 6,200 birds, while the usual farm work was executed by them at the same time.

On the 29th May the height of disease was reached, there were 1,864 birds in 19 hospitals and only six men's spare time after farm work accomplished available for treatment. Mr. Toovey, after a lot of persuasion, employed tw boys to help.

Hens with chronic roup which had been brooding chicks were placed in houses already searche for infection, causing fresh cases to accrue, consequently another 792 had to come into hospita during the next 29 days.

The treatment was medicated drink and lotion but refusal to prevent birds obtaining canal wate allowed a great number freedom from the medicine, his objection to confinement of the stock being Mr. Toovey's fear of loss of eggs, althoug partial confinement was eventually granted, to provide some compulsion for the birds to drink the medicine obtained some benefit.

No interference with the farm was otherwise created, the existing drinking vessels were sufficient for the purpose.

The advantages of this method of roup destruction over others can be summed up as follows :—

Perfectly harmless to men and birds.

No interference with sound stock or farm procedure.

No loss in egg production.

No expensive porcelain drinking vessels.

Cost from 3d. and not exceeding 6d. per bird when disease is completely stamped out.

Boy labour can execute treatment, or existing staff only can easily succeed although progress might be slower.

Up till now, the use of the six ingredients mixtures have only been used under the personal direction of the inventor, but outfits for complete cure of 100 bird stock will now be supplied at 20s. as a sample.

In Mr. Toovey's case, the rate of cure average for the whole 53 days, equalled 6 birds cured per employee per day.

The cost is always governed by percentage diseased for hospital treatment and the number of stock saved by the medicated drink from becoming affected.

The causes, development agents, and attainments in primary secondary and tertiary, to "Rabid" roup are many, but space will not allow an explanation of them now. A tribute is payable to the only personal help given amidst so many obstacles by Mr. Toovey's chief poultry man, Mr. Baldry, who patiently learned the intricacies explained to him as "fathomed" by research work, enabling him to only extract really cured birds (instead of still slightly diseased ones) from the hospitals; which was a boon to the organiser whose one pair of hands would have had to often leave them in, for days, more unskilled treatment—automatically performed.

No hospital treatment from Saturday, 12 p.m. till Monday morning was also a terrible blow to a speedy cure.

The probable cost given by Mr. Toovey on an estimated 1,500 to hospital out of about 7,000 stock was £150—equal to less that 5d. per bird, but the "rabid" roup on nearly 4,000 to hospital, would have exceeded this expense.

The whole of the material and services were provided in sympathy, without payment, until proof of cure could be established. Mr. Toovey persisted in giving a contract which caught his benefactor in "Success in a month or no payment."

Mr. Toovey eventually denied his perception of benefit beyond 2d. per bird, and wrote calling such poor results not worth more, made a present equal to it.

It must be noted that birds saturated with harmful drugs in addition to being diseased with roup, causes greater mortality and more difficulty in treatment.

Where no other drugs have been previously given, the deaths are extremely few, and in several cases, none occurring after a few days of this treatment. No case of roup destruction undertaken by this lotion and medicine, has ever been left without the disease being stamped out thereby, during three years previous to or since this case.

The presumption is that if a 700 bird farm can be cured out in a month by this treatment, which has been done, a 7,000 farm, with sufficient staff, should be able to be cleared in the same time, as no bird requires a month's treatment to destroy its roup, however deep. Mr Toovey's extension of time was purely due to shortage of labour, coupled with poor application and hindered by ignored instructions.

The far quicker results obtained by owners instead of "farm labour hirelings" can be easily understood.

The suggestion has been made that we should be acting unfairly to the writer if we refused to publish the above. Under the circumstances we have thought it wiser to do so, but we are confident that our readers will not be interested in any difference of opinion there may be between Mr. Toovey and Mr. Nicholas; and if the former gentleman wishes to reply to Mr. Nicholas, space will be at his disposal, but with his reply the correspondence must cease.—(Editor).

MEMBERSHIP OF THE S.P.B.A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, or farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely, Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex.

The financial year began on 1st September.

Correspondence.

TO BUY OR NOT TO BUY.

To the Editor of "Eggs."

Dear Sir.—One frequently sees in your valuable journal arguments as to whether it is advisable for the commercial egg farmer to rear his own stock or purchase it from breeders, and the question does not appear by any means a settled one.

A great deal is made by some writers of the point that an egg farmer should not have plant such as incubators and brooders lying idle for the greater part of the year, but seriously, can the breeder make much use of that plant at any period of the year, other than that when the egg farmer requires his chicks to be dealt with? If he can I think it is only to a limited extent, that by the way.

What I wish to urge is, that if the breeder is to fill the place of supplier of stock to the egg farmer, it is essential that he should play the game fairly and "deliver the goods" in all respects up to specification. Talking this question over recently with a friend who has had some little experience, he propounded the theory that dealers in live-stock generally, were out to "do" you. He said, "You know that in the case of the horse-dealer, it has become proverbial, the other classes of breeders are more or less tarred with the same brush." For the credit of the poultry fraternity, let us hope that as the stock dealt with decreases in size the above mentioned characteristic also decreases.

A few years ago a young man, who had suffered from "doing his bit" and craved for and indeed needed the open air life, started in a small way as an egg farmer. The first season he ordered his pullets from a few different sources. The first consignment came along quite satisfactorily, matured alright, but only laid moderately. The next, from a much advertised farm with a titled proprietor, who employed a manager, were rather a sorry lot, varied very much in size although supposed to be of the same age, and it was a constant trouble trying to prevent the large ones from bullying the smaller ones and preventing them from feeding. Even when means had been taken at considerable trouble (the necessity, of course, not having been anticipated), to separate the smaller ones from the others, they never did any good suffered from various ailments, and were always more or less "duds." The local quidnunes said "too much in-breeding." A third consignment from a farm only a few miles distant, brought by motor car, and rightaway installed in fine roomy quarters, proved very moderate layers. After the first season's experience, the young man decided the next year to go in for day-olds. The first lot of heavy breeds in February arrived in cardboard boxes with large ventilating holes and little hay, so a 25 per cent. mortality was not to be wondered at. After a protest, a consignment of light breeds in April from the same place (which we will call A), came to hand better packed and suffered only a few casualties. Meantime a consignment of 200 from a farm only a few miles away (call it B), proved a disastrous lot, about 85 per cent. mortality. A protest in this case brought another 100 chicks, and to find out if possible where the fault lay, 50 of these were put under hens. The mortality was much the same as with the others from B, that of the chicks under the hens being, in fact, rather higher than with the brooder. From the 300 chicks, 22 pullets were obtained.

This year, of course, B is out of the question, and the birds reared from A chicks, having on the whole proved satisfactory layers, an order for chicks was sent to A. I was present when the first of these arrived on a raw day with a N.E. wind, and was astonished to find a repetition of last year's experience of the absence of protection from drought. Certainly there was some hay, but it was all at the bottom of the boxes. After protest the breeder says the hay was put round the boxes, but the chicks must have trampled it down "as is usual," rather a weak way of stating it, I think.

I know from my own experience that it is quite possible to arrange the hay, so that it will not be trampled down. The chicks were evidently chilled, cheeped complainingly, and were very restless. So far there is a mortality of about 6 per cent. but others look weakly and are not going to make good. Can you be surprised when the egg farmer says "We must not have any repetition of these experiences—we must breed our own next year?"

I have had other experiences which I will not weary you with, but it would seem that to guarantee "live delivery" of chicks is a perfectly safe thing, but though alive when received, they may have been so treated that the death of a considerable proportion is a practical certainty.

Yours faithfully,

W. B.

P.S.—I have opened this letter to say that I think when breeders send out day-old chicks they ought to state the approximate time of hatching, so that the receiver may know when it becomes imperative that they should begin to feed.

LABOUR AND COSTS OF PRODUCTION.

To the Editor of "Eggs"

Dear Sir.—As a member of the S.P.B.A. and a regular reader of "Eggs" for the last two years, might I be permitted to suggest that one of the chief costs of production of eggs, i.e., that of labour, appears to be rather neglected. Could you please publish the following observations? They might lead a useful discussion.

The head of our present Government, recently sought to justify expenditure of £200,000 on recreation requisites for civil servants by observing that it was consistent with the policy of employers throughout the kingdom.

The money was not voted, but the principle, I think, is, in theory, unanimously agreed upon. To get the best out of human beings they must be treated as such, and I do not consider that, in the poultry industry, employers realise how uneconomical it is to work a man 13 (and in some cases 14) days to the fortnight, and 11 and 12 hours to the day. No man loves this sort of "bed and work" existence, it kills one half of him, and drives the other to extremist thought. He inevitably becomes a mere machine with no interest in his work, and an intense hatred of his master.

And his wages! What does he get in wages for these hours? I confess my own inability to answer the question. Wages, even within their narrow limits, manage to vary considerably, that they are miserably low is certain and probably not equal to pre-war wage of £1 a week.

Are the hours of work and wages of poultrymen dictated by individual employers, or is there a generally accepted basis throughout the industry? There are men in Lancashire to-day, working 11 hours every day in the week, including Sunday, for 35s. and 37s. 6d. per week, less than 6d. per hour.

Is there another job in the country, however unskilled it may be, which pays men at this scandalous rate. The following appeared in advertisements in "Eggs" recently:—

> Wanted, assistant poultryman, for large laying section on commercial egg farm: Wages 35s. to 38s. according to ability, live out.

Ability, mark you! 35s. for brawn, an extra 3s. for brains. We may say that this "hen farming" will not pay more. I suggest that in the exploitation of poultrymen, (a big percentage of whom are ex-service men), lies one of the chief causes of the industry to pay living wages. There is no business wherein good men are more essential: A man who gives 70 hours brawn—and brains—a week, to a job for 38s. is a machine, and peculiarly unfitted for his particular job. The day of the mechanical contrivance which will produce a good fowl and get the best out of it, when produced, is not yet, and I do not think this is sufficiently realised by the average poultry farmer.

Yours faithfully,

LANCASTRIAN.

We feel that our correspondent has slightly overstated the case. On many farms with which we are acquainted the wages are much in advance of those quoted by him, and where the lower rate is paid, there is usually a bonus.—(Editor).

STOCK POULTRY LAYING RECORDS.

Dear Sir.—With reference to Mr. Tom Barron's letter in this week's "Eggs."

Would Mr. Barron let us know why the S.P.L.R. cannot be carried out in this country? So far the only arguments put forward against it seem to be that we are going to be flooded with 300 eggers, and our laying tests will all be up for sale. Neither of the arguments hold water when you find the gentlemen who run the National Test in favour and not afraid of it, and you look through the R.O.P. records for Canada and find the percentage of certificates is round about 40 per cent., and when you remember that you can get a certificate for 150 eggs, and there were only five birds with records of over 300, out of nearly 10,000 birds. I have just taken lists 2 and 3 of the R.O.P. records for 1924-5 which are to hand.

I maintain that the performance of 5 or 6 birds in a Test is no criterion to the whole flock at home.

Surely the scheme is a National scheme, and not put forward to help just one or two breeders.

There are hundreds of small breeders crying out for such a scheme who cannot afford to send 100 birds to the Laying Tests at 10s. per head, and who would be able to show buyers what they can do under the S.P.L.R.

That, to my mind, is one of the chief successes of the Canadian R.O.P. scheme, because it studies the buyer, which is the essence of success in any prosperous undertaking, in that it shows what two or three hundred birds can do, instead of five or six as at present.

If the breeders of to-day don't want to cater, there are hundreds of breeders of to-morrow who will, and won't cook their reports any more than breeders of to-day sell hundreds of chicks from their No. 1 pens when, if all their eggs were totalled up, some must lay nearer a 1,000 in 12 months that 300.

Yours truly,

H. MACDONALD FRAZER.

CHICK MORTALITY.

Dear Mr. Newman.—The letters in "Eggs" are nearly always interesting, often helpful, and sometimes amusing. I was glad to see that in the issue of March 31st you asked Mr. Morison for figures of his remarkably small losses of 13 per cent.over 10,000 chicks. I think a statement of this kind is very misleading, especially for new hands at the job. It is easy enough to hatch 1,000 chicken, but extremely hard to produce 830 of them at, say, four months old!

I do not rear on mass methods, but endeavour to bring to maturity about 3,000 birds each year, one quarter of these being individually bred pedigree R. I. Reds. The remainder divided between W. Dottes, Sussex, Leghorns and Barnevelders. I have had hatches where known losses have been as low at 3 per cent., but if I can pick up 80 per cent. **sound in wind and limb**, at four months old, things are not going too badly.

At the present moment I have one field of three acres, there have been no chicken on it for two years; with ten broods in foster mothers hatched between Feb. 24th and March 24th. This field has been attended to by my wife who is very particular with hygiene. From one week old, the ration has consisted of wet mash, (biscuit meal) with one of Mr. Newman's dry mashes always before them, with the usual grain. Half milk and water to drink—troughs scalded and food compartments cleaned every day.

753 birds were put in this field, and to date the losses are 77. Mr Morison may comply and give his figures; but figures are very misleading things. Besides the losses one knows of, there are also such things as hawks and crows and weasels, and I have known them to take their toll even with a watcher—who also, human nature being very frail—does not always watch.

Yours faithfully,

F. D. BARNES.

Mr. Barnes will see Mr. Morison has written explaining the mistake.—(Editor).

STOCK POULTRY LAYING RECORDS.

Dear Sir.—With reference to Mr. Barron's criticism of the Stock Poultry Laying Records scheme, I fail to see how it would interfere with Laying Competitions or cause more dishonesty. Surely a breeder, backed by the Government, would have a better standing. I consider a purchaser of stock, especially from abroad, has a right to any and every guarantee possible regarding the stock. It should not affect men like Mr. Barron who, as he states, stand on their reputations, but it would be beneficial to numerous smaller breeders in the country. By all means let it be thrashed out by those it concerns, i.e., breeders, large, medium and small.

Yours faithfully.

W. L. BEALES. Capt.

Dear Mr. Newman,—Although I dislike to enter into any controversy, I should like to try and save other breeders and the country from the impossible and ruinous scheme put forward by the Ministry of Agriculture. Conditions here entirely differ from Canada, and even there they know it is wrong.

What I wish to guard against is a terrific cost to the country, because it is impracticable, unless you entail this cost, and the country to-day is taxed far too high. We can stand no more nonsense from the Government.

Besides, you are just trying to play into the hands of the unscrupulous poultry expert. Mr. Foulkes infers that reasons for my statements re honesty are lacking. Surely it is obvious to the average intelligent man there are too many loopholes for malpractices.

I am greatly surprised at the N.U.P.S. and Mr. Foulkes supporting such a scheme, as they say to be able to export more poultry. But are they quite sure that it is every man's job to export poultry? This is a breeder's scheme, and why men who are not breeders should try to impose something on them they do not want I cannot understand. The breeders of this country are daily exporting birds abroad—not just a single consignment, such as the one mentioned to Denmark. Mr. Foulkes says that we shall have a Government authority to back us. But will that be any better a guarantee than now? How are they going to improve our present methods unless they send a Government Officer to trapnest and set and hatch and toe-punch the chicks, and mark the stock produced on the farm? I do not wish to be quoted to evade the issue, because there are many good breeders in this country. You quote, Sir, bad stock being exported. We none of us can suit all our clients: There are always a few who are not satisfied, and it is not always the nicest looking birds that are the best producers. England leads the world in Pedigree Utility Poultry Breeding and the world knows it. Reputations have been built on unrestricted British honesty by the breeders who have put their whole time into it, and I appeal to poultrymen and women all over the country to never allow an ill-advised scheme of this kind to impede our success As Dr. Helm said, how many breeders have you in the Poultry Advisory Committee? The majority is by far in favour of men who have never kept poultry or had a living to make from them, and these are the men who are dictating a scheme to the practical man.

Mr. Foulkes says: What are we going to do to assist the industry?" I say, let us do something to eliminate the dishonest section of the industry, and not try to create more loopholes for dishonesty under the cloak of a Government Guarantee.

TOM BARRON.

NATIONAL DIPLOMA IN POULTRY HUSBANDRY.

The National Poultry Council calls the special attention of Instructors in Poultry Husbandry, to the special regulation affecting them which was adopted by the National Poultry Diploma Examination Board, as given in the Regulations. This is to the following effect:

"During the first five years, from January 1st, 1922, admission to the Final Examination of the National Diploma in Poultry Husbandry, will be granted to Poultry Instructors employed by Public Bodies or Institutions, in receipt of grants from Public Funds for educational purposes, and recognised by the Board, who can show to the satisfaction of the Board a total period of employment of five years as Instructor, without their being required to comply with Regulations I., II., III."

It will be seen, therefore, that in recognition of the services by Instructors prior to the establishment of the Board is given an opportunity to secure this Diploma without requiring them to conform to the other regulations, namely: (1st) Passing the Preliminary Examination in Elementary Chemistry, including Physics, Elementary Biology and Elementary Mathematics; (2nd) Spending not less than one year on approved farms; and (3rd) Going through a year's course at a teaching Institution. Therefore, all asked is that they shall sit for the Examination as provided in the Syllabus.

It is hoped that many Instructors will take advantage of this concession and enter for the Examinations to be held September 13th to 17th next. Copies of the Regulations and Syllabus can be obtained from the General Secretary, National Poultry Council, 20-21, Essex Street, London, W.C. 2.

(Continued at Foot of Next Column.)

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

Keighley and District Branch.

A party of members of the Keighley and District Branch of S.P.B.A. accepted the invitation to visit the large Commercial Poultry Farm of Mrs. Vowles, The Court House, Beningborough, York, on Tuesday, April 6th. Leaving Keighley about 10 p.m., a call was made at the Yorkshire Federation Laying Test, Otley. The manager, Capt. Thorneycroft, showed the party round and pointed out the leading pens and individual birds, giving their records up-to-date. Favourable comment was made on the healthy appearance of the birds, and the apparent good management of the whole Test.

Continuing the journey, through Wetherby and York, The Court House was reached about 2 p.m., where they were met by Mr. and Mrs. Vowles, who personally conducted the party round the farm, and explained the why and wherefore of their methods of rearing the hundreds of chicks of all ages which were roaming about on free range. The tour of inspection terminated on the lawn, where Mr. and Mrs. Vowles and family kindly dispensed tea.

In answer to a request to be shown the Wiltshire Saddleback pigs, of which Mr. Vowles has a large herd, a visit was paid by those interested. Keen interest was displayed in the method of dry mash feeding adopted. Dry food is placed in deep troughs along side of the sheds, with one trough of pure clean water from which the pigs may help themselves.

Mr. Frank Snowden, President of the Society, proposed a hearty vote of thanks to Mr. and Mrs. Vowles for their kind hospitality, and the interesting and happy time they had given them. Mr. Arthur Myers seconded the proposal which was carried with acclamation.

The return journey was made via Tadcaster, Leeds and Bradford, and Keighley was reached about 8 p.m. after a most interesting and enjoyable outing.

Keighley and District Branch of S.P.B.A. held their fourth open Egg Show in the Temperance Hall, Keighley, on Wednesday April 7th. Mr. Frank Snowden, Cowling, judged the exhibits. Awards were as follows: **Hatching Eggs (Class 1,** six white hen eggs), 1 and 2, N. Hiley, East Morton; 3, Mrs. Mallet, Summerbridge; Res., Ed. Hodgson, Oakworth; V.H.C., Mrs. Barker, Cullingworth; H.C., Geo. Davey, Sutton-in-Craven. **Class 2 (Six tinted hen eggs):** 1 and Res., N. Hiley; 2, Ed. Hodgson; 3, Mrs. H. Sanderson, Oakworth; V.H.C. and H.C., Mrs. A. Wilson, Denholme; C., Mrs. Barker. **Class 3** (Six brown hen eggs): 1, Mrs. A. Wilson; 2 and Res., N. Hiley; 3, Mrs. Mallett. **Commercial eggs, Class 4** (Six white hen eggs): 1 and 2, N. Hiley. **Class 5** (Six tinted hen eggs): 1 and 2, N. Hiley; 3, Mrs. H. Sanderson. **Class 6** (Six brown hen eggs): 1 and 2, N. Hiley; 3, Geo. Davy. **Class 7** (Six Aylesbury duck eggs for hatching): 1, 2 and 3, Mrs. A. Wilson.

After the awards had been made Mr. Rhodes, of Messrs. Green and Rhodes, Hon. Auctioneers for the Society, sold the exhibits. Proceeds were for the funds of the Society. At the conclusion of the sale of eggs Mr. Frank Snowden opened a discussion on "Pedigree Marking of Chicks." He had brought a dozen Black Leghorn chicks from his best pens, and gave a practical exhibition of Wingbanding. At the close of the meeting Mr. Snowden kindly gave the chicks for sale, on behalf of the Society. Mr. N. Hiley was the purchaser at 30s.

Positions for Silver Challenge Trophy, offered by the Society for most points gained in Egg Shows, held in 1926, are: 1, N. Hiley; 2, Mrs. A. Wilson; 3 (equal), Geo. Davy and Mrs. H. Sanderson; 4, Ed. Hodgson.

Positions for Silver Spoon, offered by Mrs. A. Wilson for most points gained in Duck Egg Classes: 1, Mrs. A. Wilson; 2, H. Kershaw; 3, Clifford Smith.

Mrs. A. WILSON (hon sec.).

The "Brigmore" Brooder

Our first system of rearing was by means of the outside foster-mother, but for various reasons, oo well known, these were scrapped after one eason, since when we have used the large brooder house.

For several seasons we tried various systems n the large house, and finally decided to experiment with hot water pipes as the system of heat, and we have now evolved a system which practice has proved is ideal and most successful, and is ncidentally much admired.

Briefly, the advantages claimed are :—

1.—A great labour saver.

2.—One source of heat for the whole of the chicks, although various ages—economy.

3.—The chicks sleep comfortably in the dark—one can walk in the house at night and not hear a sound.

4.—Total absence of fumes.

5.—Bottom ventilation is provided.

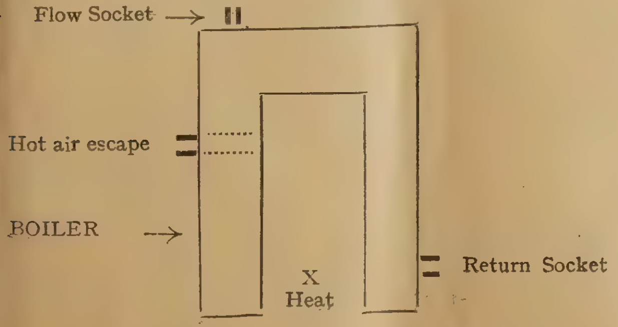
6.—Cleanliness—the brooder floor can be cleaned daily in less than one minute. It was an eye-opener to us the amount of droppings from young chicks in one day, and anyone actually seeing same would be satisfied that every day cleaning is essential.

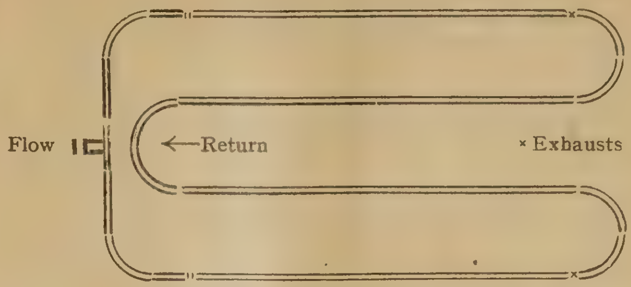
7.—Easy adjustment of heat, and steady temperature, by just raising the brooder floor, or dropping same, on battens provided.

Last season we had the floor of the brooder house of earth, but this season we have with advantage concreted this, it being much easier to clean and is much drier.

It should be noted that we are not mechanics or trained in any way, and the system should be easily installed by any handy-man, especially with the aid of a plumber.

Our boiler was heated by gas, and not much heat is necessary, and we believe that a good oil brooder lamp would supply the necessary heat, and hope shortly to test this, but would naturally recommend gas if available, as it requires no attention at all, after once being set. The boiler we use was made to our design, and only consists of a eight-gallon round flat top drum, and a similar five-gallon drum.





We had the five-gallon drum with the bottom taken out, soldered into the eight-gallon drum, a hole being cut in the bottom the size of the bottom eight-gallon drum and soldered there, thus having a space all round the five-gallon drum and also above it for the circulation of the water. Also a tube was soldered near the top of the inside drum and running through the outside drum, this being for surplus heat to escape. On top of the drum was soldered a one-inch socket for the flow pipe connections, and another socket for the return was soldered to the lower side of the drum—the diagrams make this much clearer. This boiler was made very cheaply by a plumber, and is efficient. Our boiler rests on a brick bed just below the level of the floor, the object of lowering being to allow the brooders to be not unduly high. From the top socket the flow runs, and the fittings employed by us are :—first, a round elbow (M and F) is screwed in the socket, then a pipe union, on the other end of the pipe union an equal T-piece. On each end of the T is screwed a stud nipple and then a bend, then all is ready for the long double flow pipes. Working from the bottom socket, or the return, first comes a round elbow, as before, then the union, on the other end being fixed an inch half inch T-piece, the half piece being for the supply tank, this tank being just above the top of the boiler and being connected to this T. Above the T-piece is fixed a short piece of pipe with an equal T-piece above, the length of the short piece of pipe being to bring the T up to the level of the supply pipes, or if anything, slightly lower. From this T-piece on each end is screwed round bends (M and F) thus having all connections complete for the long return pipes.

At the far end of the supply pipes is fixed an inch-half inch T-piece, the half inch portion being upwards, and is for the purpose of the air escape, and the top of the pieces of pipe that are screwed in to these should be above the level of the water in the supply tank. Into the other end of the T-piece is screwed a return bend, thus all is now ready for the two long return pipes. We fit these from the boiler end, the length being short of the return bends, so that the final connection can be made by a connector.

Around these pipes are built the brooders, and the method employed was as follows, reference to the diagrams will make it clearer to follow :—First, the ends and section between the various compartments were made; these are made from matching, about two inches higher than the pipes, and about two feet in width. They are battened at a height just above the pipes, just below the pipe level, and at the bottom. The position of the pipes are marked on these sections; and a hole corresponding with the size of the pipes are drilled in them, and the section then sawn in two through the middle of the holes.

Thus it can be seen it is now an easy matter to place these partitions in place.

It should have been mentioned that the pipes from the boiler should rise approximately—one inch in ten feet we understand is sufficient, although ours are slightly more; and we placed these in position first, by resting the far end on a box, until the sections were in position and these then held them firmly.

When these sections were all ready, a four inch board was nailed along the front and back at the top, being nailed into both portions of the sections, and then a four inch along the bottom of the front, and at the back a two inch board about an inch and a half above the brooder house floor. All battens used were $\frac{3}{4} \times \frac{3}{4}$, and after the sections were in position further battens were nailed all round inside the tops, just above the pipes, the brooder tops being made to fit in these battens of wood and lined inside with sheet metal.

For the brooder floors a frame is made of the battens, and is then covered with plasterer's lathes, about $\frac{5}{8}$ space between each, the size being to just fit easy in the space below the pipes, and these frames rest on battens at various distances from the floor, nailed on both sides of the sections. We found that a temperature of about eighty could be easily obtained, without any chicks within, with this floor resting about six inches from the pipes.

The space at the back, above the bottom board, is filled in by a separate cover to each section, hinged at the top, and held in position by a button on the bottom board, the object being for the withdrawal of the brooder floor for cleaning or adjustment.

Along the front is hung a flannel curtain, similar to a hover curtain, and the space below the floor along the front is filled in with wood. At the back below the bottom board is fitted a kind of droppings board that can be withdrawn from the back for cleaning.

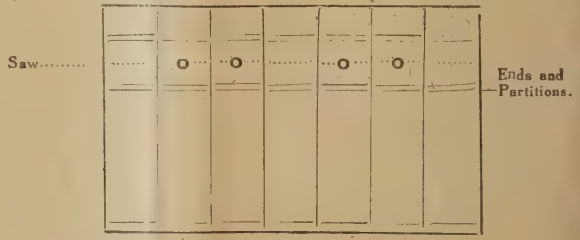
On the laths of the floors we place just a piece of canvas (sacks cut open), and after the first week these are cleaned daily, and they need it, and are then either replaced or renewed and dusted with "Izal," and no litter is used in the sleeping chamber, and after five weeks the chicks have to perch on the laths, no canvas being used, the droppings going on the board below. In either case it can be seen it takes less than one minute to clean, and we have no doubt that when it comes to hardening the chicks, that as they will have become used to perching, not a great deal of trouble will be experienced.

The runs of the chicks are divided by wood about two feet high. We find that, as the chicks cannot see one another, in various compartments, they do not seem to fly over, the litter employed being cut straw.

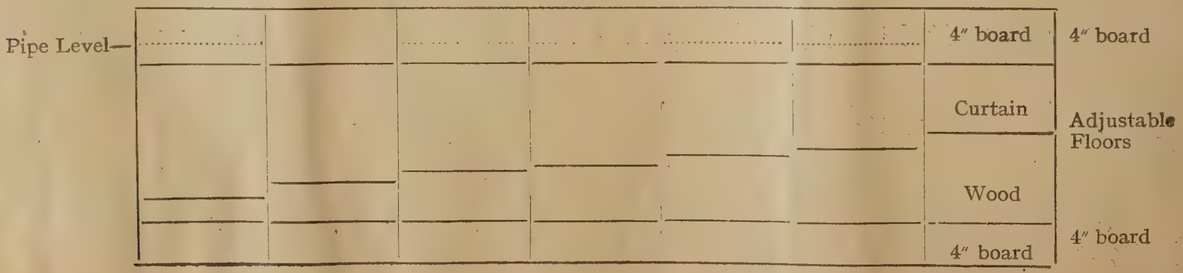
Our method is, when the chicks hatch off they are placed in a hay box, and kept there for two or three days, and then placed in the first section of the brooders. In this case a box on legs level with the height of the brooder floor is kept for the run, and each week afterwards they are moved along one section, and to reach the runs they run down a small duck board, each section having the floor lower than the preceding one, and each compartment being thoroughly disinfected before being occupied; we once had serious trouble with insects; and believe these wretched things to be a source of deaths not commonly referred to, although often a cause.

We feed on Tom Newman's dry mash method, this year using the Wellingham experimental ration, feeding very little grain three times a day, dry mash ad lib, and for about the first time find chick-rearing simple, and not a source of worry.

As can be readily seen, this method could be employed in place of the large anthracite stove and large hovers, it could be easily arranged for the chicks to run out from the front and back, and if it was necessary to have the brooders along the back of the house, and not have a passage as we have, it could be easily arranged to have the floors draw out from the front. Also it is suitable for various size flocks, a long brooder house, or in smaller units, and fumes are impossible, and there is only one source of heat.



FRONT OF BROODER CHAMBERS.



FOOD PURCHASE SCHEME.

From a number of letters recently received, it appears that it is not a well-known fact that grains of every description can be purchased under this scheme.

May we therefore state, that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns.

We cannot give prices here, as space will not permit, but price lists will be despatched immediately to any member, if application is made to this office.

Referring to the odd cwts. which are now to be supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown.

This is to cover the extra expenses and handling which the one cwt. business involves.

If the total order amounts to 5 cwt. and over, this extra charge will not be made.

PRICES OF MASHES, ETC., PER CWT.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	11/0	11/0	11/3	11/9
F.O.R. LIVERPOOL	11/0	11/6	12/9	12/9
F.O.R. LONDON	11/6	11/6	12/6	12/9
F.O.R. LONDON	11/3	11/3	12/3	12/6
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN ...	11/0	11/0	11/6	12/3
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/0	11/0	11/9	12/6
F.O.R. SOUTHAMPTON .	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH ...	12/0	14/0	12/6	14/3
F.O.R. ABERDEEN	12/0	13/6	13/6	13/0
F.O.R. HARROGATE ...	11/6	11/6	12/3	12/9
F.O.R. GLASGOW	12/0	12/0	12/0	13/0
F.O.R. STAFFS	10/9	10/9	12/3	12/0
FO..R. SUSSEX (East) ...	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/3	10/9	11/6	11/3
F.O.R. SUSSEX	11/6	11/6	12/6	12/6
F.O.R. BRADFORD	11/6	11/6	12/3	12/9
F.O.R. BIRMINGHAM ...	11/6	11/6	12/3	12/6
F.O.R. GREENOCK	11/6	12/0	12/9	13/3
F.O.R. TEWKESBURY ...	11/9	11/9	13/0	13/3
F.O.R. BOLTON	11/9	11/9	12/9	12/9
F.O.R. MIDDLESBROUGH	11/3	11/0	11/3	12/3
F.O.R. PARTRIDGE GREEN, SUSSEX	11/3	11/6	11/0	12/3
F.O.R. HULL	12/3	11/6	12/3	12/9
F.O.R. ESSEX	11/0	11/0	11/9	14/3
F.O.R. BIRKENHEAD ..	11/0	11/0	11/3	11/9

FATTENING MASH.

F.O.R. LIVERPOOL	11/6	F.O.R. SUSSEX (E.)	12/3
F.O.R. LIVERPOOL	12/6	F.O.R. HERTS ...	11/9
F.O.R. LONDON ...	12/6	F.O.R. SUSSEX ...	12/6
F.O.R. LONDON ...	12/0	F.O.R. BRADFORD	——
F.O.R. LEITH	11/0	F.O.R. BIRMINGHAM	——
F.O.R. LEICESTER	12/3	F.O.R. GREENOCK	12/9
F.O.R. KING'S LYNN	11/6	F.O.R. TEWKESBURY	11/6
F.O.R. BELFAST ...	12/6	F.O.R. BOLTON ...	12/0
F.O.R. BRISTOL ...	11/9	F.O.R. MIDDLESBRO.	12/0
F.O.R. SOUTHAMPTON	11/9	F.O.R. PARTRIDGE GREEN, SUSSEX	11/6
F.O.B. PLYMOUTH	11/9	F.O.R. HULL ...	——
F.O.R. ABERDEEN	13/0	F.O.R. ESSEX ...	——
F.O.R. HARROGATE	12/9	F.O.R. BIRKENHEAD	11/0
F.O.R. GLASGOW	12/0		
F.O.R. STAFFS ...	11/3		

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	17/0	15/0
F.O.R. LIVERPOOL	17/0	14/9
F.O.R. LONDON	17/0	15/0
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEICESTER	16/6	14/6
F.O.R. KING'S LYNN	17/0	14/9
F.O.R. BELFAST	18/0	16/9
F.O.R. BRISTOL	17/3	14/9
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	14/6	13/6
F.O.R. HARROGATE	17/6	15/3
F.O.R. GLASGOW	17/0	15/0
F.O.R. STAFFS	17/0	14/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	16/6	14/3
F.O.R. SUSSEX	18/0	14/9
F.O.R. BRADFORD	17/6	15/9
F.O.R. BIRMINGHAM	18/0	16/0
F.O.R. GREENOCK	18/3	15/0
F.O.R. TEWKESBURY	18/3	16/3
F.O.R. BOLTON	17/0	15/3
F.O.R. MIDDLESBROUGH	17/6	16/3
F.O.R. PARTRIDGE GREEN, SUSSEX	17/3	15/3
F.O.R. HULL.	15/9	14/6
F.O.R. ESSEX	17/9	15/9
F.O.R. BIRKENHEAD	16/9	14/9

	Per Cwt.	
Fish Meal (Pure White) ...	18/3	F.O.R. LONDON.
,, ,, ,, ...	18/3	F.O.R. BRISTOL.
,, ,, ,, ...	17/9	F.O.R. SWANSEA.
,, ,, ,, ...	17/9	F.O.R. TYNEMOUTH
,, ,, ,, ...	17/9	F.O.R. GRIMSBY.
,, ,, ,, ...	17/6	F.O.R. BRADFORD.
Special Fish Meal	17/3	F.O.R. MIDDLESBORO.'
Meat Meal	15/0	F.O.R. LONDON.
Meat and Bone Meal	13/6	F.O.R. LONDON.

		Per Cwt.
MAIZE GRITS	F.O.R. LONDON	10/6
MAIZE GRITS	F.O.R. IPSWICH	10/6
S. G. OATS	F.O.R. LONDON ...	13/0
S. G. OATS	F.O.R. SUSSEX	12/6
S. G. OATS	F.O.R. BRISTOL	12/9
MAIZE GERM MEAL	F.O.R. LONDON	8/0
MAIZE GERM MEAL	F.O.R. IPSWICH	8/0
MEAT AND BONE MEAL...	Carriage Paid	15/3
MEAT MEAL	Carriage Paid	15/9
ALFALFA	F.O.R. LONDON	11/6
,, ...	F.O.R. BRISTOL	11/6
BONE FLOUR	F.O.R. LONDON	9/6

It would be of very great assistance if members when ordering would always state station they wish goods despatched to, also their nearest depot.

SPECIAL.

We can offer a special sample of Fish Meal, with the following analysis :—

OIL	4.5 per cent.
ALBUMINOIDS	55.60 ,,
PHOSPHATES	16.18 ,,

At following prices, F.O.R., London. Under 5cwts. orders 18/9 per cwt.; 5cwts. and upwards, 17/9 per cwt.

A special offer is made this week for the following articles, F.O.R. MIDDLESBROUGH :—

PURE WHITE FISH MEAL.— Album. 55/60, Phos. 15/20, Oil under 4%, Salt under 3%, at 17/- per cwt.

MEAT & BONE MEAL.—Album 35/40, Fats 10/15, Phos. 25/30, at 12/9 per cwt.

PURE MEAT MEAL.—Album 57/62, Fats 10/15, at 15/6 per cwt.

ANSWERS TO QUERIES—Continued.

"Enterpriser" (Slough) wishes to know whether it is profitable to hatch table poultry every month in the year. No, it is not profitable to hatch at all times of the year for table purposes. It is hardly worth while to do so from March to the end of August, although it may be profitable to hatch a few heavy birds for the Christmas trade, such as Game Orpingtons, Game Sussex, or even pure Game. At that particular time a big bird is desired for table. The most profitable time to hatch table poultry is from the beginning of September to the end of January.

E. H. (Harrogate) writes to ask whether I can give her any advice regarding her hens. Year-old birds started being lame on the right leg, and when killed their livers are spotted and very large, other parts being quite healthy. They are fed as follows: Morning, paste (50 p.c. sharps, 20 p.c. bran, 15 p.c. oatmeal and 15 barley meal); afternoon, Indian corn 50 p.c., wheat 30 p.c., and oats 20. I think my correspondent should send one of these hens for post mortem examination. It may be that the liver is tuberculous. I note there is no animal food in her mash. If these hens are comparatively poor layers it would certainly be advisable to reduce the amount of Indian corn, and from what she tells me I am inclined to think this is tuberculous liver, and she should get an opinion on that point.

F. A. F. (Co. Kildare) writes that she imported some day-old chicks from England about a fortnight ago, and they have been most unsatisfactory. Two were dead on arrival; more died the first night, and continued to die off, averaging from two to three a day until, out of two dozen, only eight are left. They are not growing or thriving at all so far. All fed well until they died, looking lively enough. My correspondent informs me that she used to leave them apparently quite well and return to find one or two dead, and the deaths took place in the first few days. The disease has been diagnosed as Aspergillosis, and my correspondent asks me if I can tell her how they got this disease. They have begun dying in the first twelve hours; in fact, in the first night. She has reared a great many chickens under exactly the same conditions, the same lot of food and litter, and all have done splendidly. I am afraid this is a matter in which I cannot help her. As has been explained before in these columns, the disease is caused by the spores of a very common fungus known as Aspergillus, or usually, Aspergillus Fumigatis. These spores are often found in damp or mouldy food or litter, and are inhaled or taken in with the food. It has been suggested in this disease, as well as Coccidiosis and B.W.D., that it is sometimes carried in the egg. Spores are found in the digestive track of hens, and it is suggested it is not unlikely that they may work up the oviduct from the cloaca and infect the egg before it gets the shell. I am afraid I cannot help my correspondent more than this. The suggestion then is that the eggs from which these chicks were hatched were infected. It seems to me rather remote, but possible. What, however, makes the case more difficult is this: We have two dozen chicks; we cannot think that every egg is infected in this manner from every hen, and it does not seem possible that there should be infection from chick to chick in such a short time as would cause such a high mortality in such a short period as this. I am only putting this point as a practical breeder. I do not think that the eight chickens would infect the others with the disease if they are put with them, but as she says they have not grown or developed in any way, it hardly seems worth while keeping them.

"Beginner" (Bradninch) writes that he has about 200 Light Sussex birds of good strains—all running on free range and with a proportionate number of cockerels of the same breed—fertility about 85 per cent, and he asks if I can give him any idea as to how to dispose of the eggs for incubation purposes. He does not mean individual sittings, but regular weekly supplies. He does not think the number is hardly enough to justify intensive advertising. I regret that I cannot help him in this respect, unless he could get into touch with someone who is hatching numbers of eggs, especially for the day-old chick trade. There would be no difficulty in disposing of preserved eggs in th winter months in fairly large quantities. Some of the bi London dealers would buy preserved eggs in large quantities We regret that we cannot give names.

H. C. (Broxburn) sends two samples marked Sussex Grounc Oats. Neither are "Sussex Ground"—they are both very good samples of ground oats, and would answer equally as well as Sussex Ground; of the two samples No. 1 is the better.

M. H. (Bicknoller) wishes to know the cause and remedy fo feather plucking, in a pen of Black Leghorns, which she sold to a friend; and also sees that two of her own hens, which are kept semi-intensively, are losing feathers on their backs just by their tails. My correspondent does not think the latter is due to the depluming scabies—they are clean and free from any lice. Usually, feather plucking is a vicious habit induced by idleness, and is most common with birds kept in confined runs, or intensively. It may occasionally originate from the depluming scabies. The only effective treatment is to smear the feathers with some nauseous compound, such as bitter aloes mixed in lard or vaseline. The habit should be checked, as it sometimes leads to an outbreak of cannibalism. I would also give the birds sulphate of iron in the drinking water. As to the two hens, this may be due to the depluming scabies, but it is also possibly due to the too vigorous attention of the male bird.

Reader (Berks) has just been introduced to "Eggs" by a friend, and would like to say right away that he thinks it much superior to either of the two other well-known poultry papers that he has been taking. I cordially agree. He sends a sample of meat meal which he has had by him for some months, and asks if it is fit to feed to laying hens, and his second query is rather curious. He has asked various authorities the following, but has never had a satisfactory explanation: "It is generally recommended that eggs stored for hatching should be left broad dome up and left undisturbed in that position until placed in the incubator. Admittedly this allows the air cell to settle in its proper position, but what I do not understand is why the germ should not stick to the inner membrane when the egg is left broad dome up, just the same as if it were left on its side. If the germ is left on its side, it should be turned at least every 24 hours to obviate the possibility of the germ sticking to the inner membrane; but apparently it may be left broad dome up for ever, and the germ will not stick—why?" In answer to the first question, I can see nothing wrong with the meat meal. Of course, it has not improved by keeping, but it is not likely to prove injurious to the hens if this is a fair sample. In answer to the second question, I have always advised that eggs intended for incubation should be stored on their sides, and was not aware that it was believed that by storing them dome end up it would prevent the germ sticking to the membrane. It will not stick to the membrane at all if there is not too much evaporation. The yolk is enclosed in the vitelline membrane, and occupies the whole of the space. At one particular point on the surface may be seen lying immediately under the vitelline membrane—a small white disc; this is the blastoderm or germinal skin. The disc is always to be found uppermost whatever the position of the egg, because that portion of the yolk which is in the neighbourhood of the disc has a lighter specific gravity. The great mass of the yolk is composed of what is known as yellow yolk, and is enclosed in a thin layer of different material known as the white yolk, which at the edge of the blastoderm passes underneath the disc, and, becoming thicker at this spot, forms a bed on which the blastoderm rests. Immediately under the middle of the blastoderm this bed of white yoke is connected to a narrow neck with a central mass of similar material, laying in the middle of the yolk. This in no way explains the theory put forward by my correspondent that if the egg is placed dome end upwards the germ will not stick to the membrane. Possibly the idea is that in that position it will be equi-distant from the membrane, and will not come into contact with it; but that is not the case, and as I have said before, there will be no sticking if there has not been too much evaporation.

GAS AND INCUBATORS.

To the Editor of "Eggs."

Dear Mr. Newman,—In "Eggs" issue of 24th March, 1926, under Answers to Queries, I see in reply to "Puzzled" (Worcestershire), you say: "The only suggestion that I can make is that the cause is escape of gas fumes into the incubator."

Now I am just going to give you my "costly experience" in regard to using gas in heating up an incubator. I put 345 eggs in a 390-egg Glevum, tested out 10th and 14th days, 46 eggs clear, and weak germs, leaving 299 eggs in incubator. On the 15th day turned eggs in morning before leaving for my place which is two miles from my home, where incubator was running. At about 10.30 a.m. the gas inspector called to see if the meter was O.K., and through not being informed that an incubator was working, turned the gas off, and turned it on again; so that when I arrived home at 6 p.m., I found the gas flame out and the incubator room full of gas fumes. Opened window and let the gas fumes out and lighted up again. Took trays out and found thermometer registering 75 degrees, the same as the room thermometer. Opened up two top ventilators to clear machine of gas, and then put trays back. Knowing that some good results have been experienced through lamps going out I did not expect a bad result. Oh, what an illusion, when I opened the machine on the 22nd day!—75 chicks. All dried out gasping for breath, although the thermometer only registered 103½ degrees. Got the chicks into the nursery drawer af another machine that was running with oil and waiting to be filled with eggs. Got quite a surprise to see in a few minutes that some had "given up the ghost," so watched them and saw chicks that were liveliest would take a stagger and drop dead. Took three days for all to "go west" with the same symptoms. On examining the eggs found all to contain chicks fully formed, but dead before breaking through the membrane. On cleaning the machine could smell gas fumes in incubator, so came to the conclusion that the gas fumes had "hung fire" above the tubes that the top ventilators are attached to. Below is a rough sketch which may make the matter clear.

Not one egg hatched on tray A, which was the tray nearest to the gas burner on the day the gas was turned off. All the chicks hatched on tray B, mostly in the front half of the tray over ventilator B which was open, so would let fresh air to chicks on tray B. Ventilator B is out of order so could not be shut.

Eggs from the same pens as above hatched as below:—

Before machine was set.	100 eggs.	89 chicks.
After machine was set.	100 ,,	92 ,,
	120 ,,	104 ,,

These three hatches were from eggs sold, so I am convinced that the "gas demon" caused my "costly experience." Same machine last year, run once, hatched 81.5 per cent.

Yours faithfully,

R.J.T.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

Twist, Henry, 110, Plank Lane, Leigh, Lancs.
Clark, W., 8, Council Bungalow, Tiptree, Essex.
Thomson, Mrs. B. S., North Desky Farm, Lumsden, Aberdeenshire.
Bertouch, Ernest de, Dorset Road, Bexhill.
Haigh, Edwin F., c/o C. Perry, Esq.,Springvale P. Farm, Poste Restante, Maritzburg, Natal.
The Colony Poultry Farm, Alderley Edge, Cheshire.
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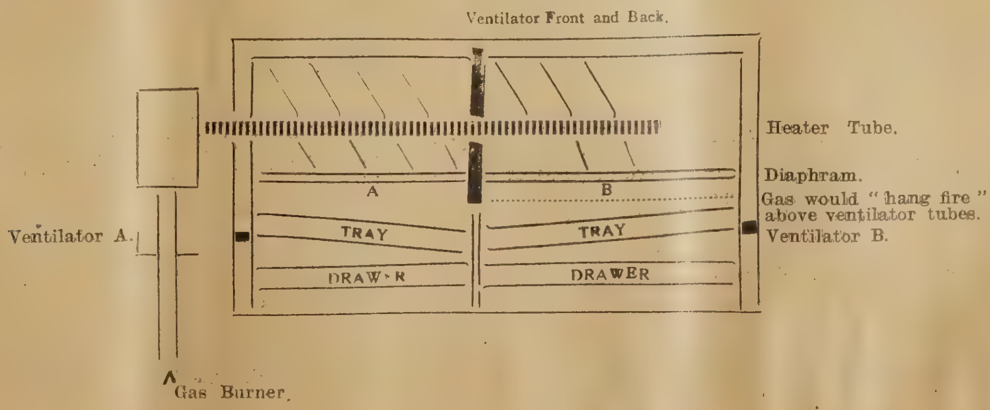
Maunder, J., Pen-Y-bryn, Freshwater Bay, Isle of Wight.
Dawton, Mrs. D., Burford Bungalow, Worlington, Mildenhall, Suffolk
Willcocks, Mrs. W. G., Byrecroft, Leominster.
Meyers, Arthur, 27, North View Terrace, East Moreton, Bingley.
Coles, Mrs. Guy, Chart Cottage, Dorking



Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, APRIL 9th, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is in small supply and dearer at Hull, while at other centres recent prices are maintained, the average quotation being 12s. per cwt. Imported wheat is generally in fair request and slightly dearer at most markets. Barley attracts rather more attention, and home-grown and imported feeding descriptions realise more money, the former averaging 8s. 1d. per cwt., as compared with 7s. 8d. last week. English oats are dearer at London and Hull, and black varieties now average 8s. 7d. and white varieties 9s per cwt. Foreign oats are in short supply at some centres, and prices generally have advanced slightly on the week. Maize is in better demand and dearer, Argentine averaging 7s. 8d. per cwt, as against 7s. 4d. last week.

Milling offals attract more attention, but recent prices are unchanged, except at Bristol, where coarse middlings realise 2s. 6d per ton more. Recent quotations for meals are well maintained, maize products being dearer at several centres. Oil cakes meet a rather better trade, but linseed cake is cheaper at Bristol and London, while cotton seed cake sells at late rates.

MILLERS' OFFALS.—Bran (British): Bristol, £6 15s; Hull, £6 7s; Liverpool, £6 15s; London, £6 5s. Broad Bran: Hull, £7 17s; London, £7 10s. Middlings: Fine (Imported): London, £7 12s. Coarse (British): Bristol, £7 10s; Hull, £7; Liverpool, £6 15; London, £6 7s. Pollards (Imported): Bristol, £6; Hull, £5 10s; Liverpool, £5 7s; London, £5 17. Rice Bran: Bristol, £6 15; Liverpool, £6 10; London, £6. Meal.—Barley Meal: Bristol, £9; Hull, £9; London, £9 10s. Maize Meal: Bristol, £9 5s; Hull, £8 8s; Liverpool, £8 15s; London £8 10s. Maize Meal (S. African): Bristol, £8 5s; Hull, £7 15s; Liverpool, £7 15s; London, £7 2s. Maize Germ Meal: Hull, £8; London, £7 17s. Maize Gluten Feed: Bristol £10 5s; London, £9 5s. Maize Cooked Flaked: Hull, £10 5s; London, £10 10s. Locust Bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9 5s. Bean Meal: Bristol, £13; Hull, £11 7s; London, £12 5s. Fish Meal: Bristol, £20 10s; Hull, £19; Liverpool, £18 10s; London £18.

EGGS AND DEAD POULTRY.

Eggs are in full supply and prices are fairly steady for most descriptions. Dead poultry is in demand, and last week's rates are well maintained.

Eggs (per 120): British, 12s 6d, 11s 3d. Irish, 12s 6d, 12s 3d; Danish (18 lb), 14s 3d, 14s; Danish (15½ lb.), 11s 9d, 11s 6d; Dutch, brown, 13s 3d, 13s; Dutch, mized, 12s 3d, 11s 9d; French, (Normandy brown), 13s 6d, 12s 9d; French (Normandy mixed), 12s, 11s; French, (Brittainy) 10s, 9s 6d; Belgian, 11s 9d, 11s 3d: Egyptian, 8s 6d, 8s 3d; Polish, 9s 6d, 9s.

Dead Poultry (per lb.): Fowls, Surrey, 2s 1d, 1s 8d; Irish, 1s 7d, 1s 5d; Others 1s 9d, 1s 4d; Ducks 2s 6d, 2s 3d.

EGGS.

Per Doz.—Ashford: First, 1s 4d; Second, 1s 2½d. Birmingham: First, 1s 3d; Second, 1s 2½d. Bridgewater: First, 1s 3d; Second, 1s 2d. Chelmsford: First, 1s 4½d; Second, 1s 2½d. Colchester: First, 1s 4½d; Second, 1s 1¾d. Doncaster. First, 1s 5d; Second, 1s 4d. Dorchester: First, 1s 2¼d; Second, 1s 1¾d. Exeter: First, 1s 1d; Second, 1s. Hereford: First, 1s 2d; Second, 1s. King's Lynn: First, 1s 3d; Second, 1s1d. Llandilo: First, 1s 1d. Mold: First, 1s 2d, Second, 1s 1d. Montgomery: First, 1s. Newport (Mon.): First, 1s 2d; Second, 1s 1d. Norwich: First, 1s 2¾d. Oswestry. First 1s 2d; Second, 1s 1d. Penzance, First, 1s; Second, 11d. Saffron Walden: First, 1s 3½d; Second, 1s 1¾d St. Ives. (Hunts.): First, 1s 3d; Second, 1s 2d. Skipton: First, 1s 3d. Swindon: First 1s 2d. Truro: First, 11d. Welshpool: First, 1s 3d; Second, 1s 1d. *Carlisle: First, 1s 4d; Second, 1s 2d. *Derby: First, 1s 5d. *Ipswich: First, 1s 4d; Second, 1s. *Lincoln: First, 1s 4d. *Shrewsbury: First, 1s 2d: Second, 1s. *York: First; 1s 5d. Salisbury, First, 1s 2½, Second, 1s 2d.

FOWLS.

Per lb. Birmingham: First, 1s 7d; Second, 10d, Doncaster: First, †6s; Second, †5s. Exeter: First, 1s 8d; Second, 1s 4d. Hereford: First, 1s 6d. Llandilo: First, 1s. 8d; Second, 1s 5d: Newport (Mon.): First, 1s 8d; Second, 1s 2. Truro: First, 1s 5d. Welshpool: First, 1s 6d; Second, 1s 5d. *Derby: First, †5s 6d; Second, †3s 6d. *Ipswich, First, 1s 6d. *Lincoln: First, †5s 6d, Second, †4s. * Shrewsbury: First, 1s 6d; Second, 1s 3d.

DUCKS.

Per lb.—Exeter: First, 1s 8d; Second, 1s 3d. Welshpool: First 1s 5d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

*** At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.**

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, April 14th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

POST-MORTEMS.

W. E. T.—The result of the agglutination test on 13 birds and **cows A.B.C.** showed that No. 7 and No. 11 among the birds reacted to the test, and may therefore be regarded as "carriers," and should at once be removed from the breeding pen and from all contact with breeding birds. The blood serum of **cows A. and B.** also gave the reaction, **cow C. did not.** It therefore looks as if your suggestion that cows might be "carriers" is correct, but of course, much more work will have to be done in testing quite a large number of cattle, before this fact will be generally accepted. The investigation for the discovery of the bacillus pullorum in the milk is not yet complete, but I will inform you immediately anything is discovered.

K. R. P.—The post mortem examination of the pullet showed the cause to be Asthenia, which is a bacterial disease, resulting in a muco-enteritis, debility, and wasting. Slight cases may entirely recover, or run a chronic course, but severe infections, coupled with a low individual resistance, lead to rapid emanciation and death from exhaustion. The droppings of affected birds are the media of spread, so that affected birds should be isolated and the floor of the house constantly cleaned and disinfected with strong disinfectant solutions. The following treatment is advised, first to clear away mucous, etc. from the duodenum, which is the portion of the intestine involved; give a full dose of castor oil, or, if there are many to treat, epsom salts in the mash—11 ounces to 100 birds; then follow with 3 grains per bird, twice daily in the food, of the following powder: Half a dram each of powdered fennel, aniseed, coriander, cinchona, 1 dram each of powdered ginger and gentian, sulphate of iron 15 grains. Fresh stock should not, of course, occupy the quarters vacated by these birds, until very thoroughly disinfected, and with special regard to the floors and articles soiled by the excreta.

G. G. A.—The post mortem examination of the chicks (3), showed that the cause was peritonitis due to decomposition of the yolk sacs. There were no signs of B.W.D., and neither is the history of a few deaths during the last month consistent with the presence of that disease, and the most likely cause of the yolk sac trouble is feeding too soon after hatching and too generously during the first week after.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, APRIL 21st, 1926.

Editorial.

BACILLARY WHITE DIARRHOEA.

In the interest of all concerned, we publish the following extract from an announcement recently made by the Ministry of Agriculture. As will be seen, it has reference to agglutination test for Bacillary White Diarrhoea :—

VETERINARY TESTS FOR POULTRY DISEASES.

> In this connection the Ministry wishes to point out that the agglutination test is only desirable for the detection of carriers of Bacillary White Diarrhoea amongst breeding stock. It is inadvisable and unprofitable to apply it for the elimination of infection from among chickens which have survived an outbreak. Moreover, the application of the test once to a flock with negative results is not a guarantee that B.W.D. does not exist in it—to give any reasonable guarantee of the kind there should be three tests, at intervals of, say, three months. The statement therefore which is sometimes made, that every fowl in a flock has been tested by the Ministry and has given a negative reaction, does not necessarily mean that the flock is free from infection, and is, in fact, of no value.

The importance of this lies in the very definite statement that "to give any reasonable guarantee of the non-existence of B. W. D. in a flock, there should be three tests, at intervals of, say, three months, **and that the mere fact that every fowl in a flock has been tested and given a negative reaction does not mean that the flock is free from infection**—and is, in fact, of no value."

We have emphasised this because a great deal of misunderstanding exists in relation to the test. During the present breeding season keen disappointment has been expressed by many buyers of sitting hens and day-old chicks from stock advertised as "blood tested." It is only fair to say that the breeders are as keenly disappointed as their customers, but we conceive it to be their duty to cease to advertise stock as blood-tested, when they are aware that, in spite of the test, the disease exists on their farms; neither is it fair to the customer to protest that the diagnosis must be wrong, and to say it is so, because their stock has been blood-tested, when they know, from their own experience, that the test by no means proves the stock to be free from the disease.

On the other hand, we suggest to our readers that they will be most unwise to accept, as correct ; **a diagnosis as B.W.D.** unless a bacteriological examination has been made, and they should obtain an assurance that this has been done; an ordinary post-mortem examination cannot be relied on.

We take the following from the "Poultry Tribune" for April. It will give our readers a clearer idea of the position, and the possibilities of the test :—

RELIABILITY OF AGGLUTINATION TEST.

> "In my opinion, the agglutination test for bacillary white diarrhoea infection in grown chickens is reliable. This conclusion is the result of at least ten years' work on the agglutination test and its practical application throughout the State of Connecticut. Of course, we must all admit that no diagnostic test is one hundred per cent. perfect, even the blood tests for typhoid and syphilis in man."—(Rettger.)
>
> The agglutination test for bacillary white diarrhoea in chickens is one of the most reliable biological tests applied in the diagnosis of animal disease. The trouble in applying this test, however, lies in the fact that people fail to realise the importance of sanitation, the common impression being that bacillary white diarrhoea is only transmitted through the egg and not from bird to bird, whether adults or chicks."—(Stafseth).
>
> "I believe the agglutination test for white diarrhoea is quite reliable if conducted properly. I believe, however, that the technique for the test needs to be standardised. There are at least four different methods being used for running this test at the present time, and doubtless the results of the tests are not uniform."—(Runnells.)

THE EFFECT OF THE DISEASE ON CHICK MORTALITY.

> "At the suggestion of Dr. Gage I am writing to inform you of the very favourable results that we have obtained this year with the microscopic agglutination test of fowls for bacillary white diarrhoea. The total number of birds tested during the breeding season is 66,503. The total percentage of infection found is only 2.94. Seventy-nine (79) bacillary white diarrhoea disease-free flocks, representing 25,390 birds, have been established. We have checked up on the liveability of chicks hatched from eggs from disease-free flocks, and have found it to be over 94 per cent. This in itself, in my opinion, shows the worth of the test to the poultrymen of the State. Of course, these results are not due to this season's work alone. This State has been doing this work for a number of years; in fact, I believe that Massachusetts is one of the pioneers in doing this work on a State-wide basis."—(Bransfield.)
>
> "Since bacillary white diarrhoea is an infectious disease amenable to practical methods of control, there is nothing in the way of building up and maintaining flocks free from this disease if there is a will to do it on the part of the flock owner. This of course means that he must learn how to carry out every essential measure. The obstacles in the way of controlling and eradicating white diarrhoea in poultry flocks are the same as in the control and eradication of tuberculosis, contagious abortion, hog cholera, foot-and-mouth disease, and other infectious maladies. It requires first a knowledge of how to do it **and the will**

(Continued at Foot of Column on Next Page).

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

B. W. D.

I have received the following letter from a correspondent, who desires to be known as "N.D.A." He is writing on the subject of B.W.D. :—

"I am a reader of your valuable paper, 'Eggs.' I started hatching this year with Hearson's incubators from healthy open range farm stock, and got healthy alert chicks. In one case I got 85 rearable chicks from 103 eggs. There were 91 actually hatched, but two were killed accidentally, and four were club foot. Out of 126 chicks put into two brooders not one chick has been lost; 50 per cent. are now six weeks old and 50 per cent. four weeks old, and to all appearances perfectly healthy and as lively as crickets. My third batch consisted of 60 chicks from a 25-egg and 50-egg incubator. These were put into a brooder, and our previous good fortune met with the reverse; 16 of these chicks were from a neighbour's eggs, and it was amongst these that the trouble commenced. We started with one dead, and noticed that it was pastey behind and crop full; we noticed others in a similar state. More died, until we decided that the brooder (which, by the way, came last year from the same place as the eggs which hatched the chicks in which the trouble commenced) was the cause of the trouble. So we removed the chickens into a brooder which contained a brood of three weeks chicks, and put the three-weeks-old chicks into the brooder. The deaths still continued, so we gave them a tonic as prescribed in your paper—citrate of iron and quinine—and sent a dead chick to Major Saunders for post-mortem. Result.—B.W.D. They are now fourteen days old; 11 have died, 49 alive, and no deaths for the last four days. I have a fourth brood, 85 in number, five or six days old, isolated from all other stock; from my own eggs entirely, healthy chicks, and up to now no deaths.

The point that I want to come to is:—Is B.W.D. inevitable once a flock or any portion of it becomes infected? If I take No. 4 brood of 85 and put them in the brooder occupied by No. 3 brood of infected chicks, when No. 4 brood are three weeks old, am I likely to lose some of them with B.W.D.? Do fowls exercise resistance to B.W.D. when in a healthy state, well fed on free range? Is it possible to immunise a flock absolutely? I am told that infected birds after about the tenth day become immune, but remain carriers and transmit the germ to their eggs, and so the life cycle goes on in the next generation. This may be so, but is not this next generation immune? If the parent is immune, why not the offspring? I have had a certain amount of scientific training in an agricultural school and hold the N.D.A., and have also had considerable experience as a farmer, and have generally found that under healthy conditions either absolute immunity is set up or else a high state of resistance. In the case of abortion in cattle, a cow aborts, and in 99 cases out of 100 she will never abort again. She becomes immune, but she may be a carrier, and, although she produces a fully-fledged calf, she can be a source of infection to others. Her calf may be teeming with the germ which causes abortion, but it will itself be immune, and in this way so long as a herd remains closed—that is, no fresh stock introduced—the whole herd becomes immune in about three years.

Now, Mr. Editor, is it not possible that something of this sort might not happen with regard to B.W.D. in fowls? Or is it an established fact that once a strain becomes infected that it is the end of it as a healthy strain with regard to B.W.D.? To me this hardly seems

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EDITORIAL.—Continued

to do it, and a persistence in effort and a willingness to suffer some immediate loss in order to attain the ultimate object. The trouble with some flock owners is that when they find several good birds affected with this disease they hesitate to dispose of them, but persist in keeping a few infection carriers on the premises. Another obstacle is the apparent greater interest of some flock owners and hatcheries to gain an immediate profit from the advertising of a tested flock, instead of having an accredited flock free from the disease."—(Connaway.)

The concluding sentence deserves special attention. It is explicit enough—the wide difference between a tested flock and an accredited flock free from the disease. Readers of "Eggs" will now perfectly understand that an advertisement of "blood-tested stock" does not necessarily mean freedom from B.W.D., and they will be saved much disappointment if they fully realise this.

All credit is due to breeders who have been enterprising enough to have their stock blood-tested. It is to the benefit of the industry; nothing should be done to minimise the value of the test. We have a fuller appreciation now of what it means, and if we are to stamp out a disease, which is costing the industry an enormous sum annually, every encouragement should be given to breeders to have their stock tested, and we hope that the National Poultry Council will make representations to the Ministry of Agriculture, so that better facilities may be available for making the test than at present exist.

> feasible, and I shall be very glad to hear through your columns from you exactly what is the case. Please excuse me arguing on a matter I know very little about, but I wish to be enlightened so that I may formulate plans to secure healthy chicks another year."

I am afraid that the information my correspondent requires I am not in a position to give him. I must, however, deal with the question which he puts me:—"Is B.W.D. inevitable once a flock or any portion of it becomes infected?" This, I presume, would depend upon whether there were survivors from a brood which had been affected. By a "survivor" I mean one which has actually had the disease and recovered; not one which has proved immune. In the first case, such a chick would become a carrier, and then B.W.D. would be inevitable.

His second question is very difficult to answer. He states: "If I take No. 4 brood of 85 and put them in the brooder occupied by No. 3 brood of infected chicks, when No. 4 brood are three weeks old am I likely to lose some of them with B.W.D.?" We are first assured that chicks are not susceptible to infection after four or six days old, and then we are also told this is not the case, and that even adult stock may become infected. The impression one gets from this is that chicks over three weeks old may have the resistant power, but they may become infected, but the mortality would not be so heavy. We have no evidence yet which would allow us to say that fowls exercise resistance to B.W.D. when in a healthy state. No tests are available which would allow us to say whether it is possible to immunise a flock absolutely.

I do not think my correspondent is correct in suggesting that the carrier bird is not only immune, but confers immunity upon its progeny.

I cannot answer his question as to why, if the parent is immune, the offspring is not.

It is quite possible that what he refers to in cattle may happen with regard to B.W.D. in fowls. Our experience is, that once B.W.D. is established in a flock it persists.

We will certainly excuse our correspondent arguing on a matter which he professes to know nothing about. It is a subject at present on which no one appears to know much about.

C. O. D.

I have received, through the post, a tin containing some eggs packed in bran. On the top of the eggs and inside the tin is a letter written in pencil. All we can decipher are the words: "Incubator, wet, sawdust room," and the name "A. Toll" The remainder is undecipherable, and is a sticky mass of egg yolk. The Post Office authorities cannot be blamed entirely for this smash; the eggs were too loosely packed, not sufficient bran being put in to keep them steady.

I have frequently pointed out to readers in these columns the futility of sending eggs through the post, as in ninety per cent. of the cases they are broken, but still they come.

It does not seem that poultry breeders would have any great reason to welcome the "C.O.D." system, unless the authorities are prepared to make better arrangements for the carriage of breakable articles.

PERIOD OF HATCHING.

I have received the following very interesting letter from Mr. E. Wimberley:—

> "Two points have occurred to me which might be of interest: (1). There was a discussion in "Eggs" about a year ago about the variation in the number of days taken to hatch hen eggs. Is it possible that the "Early Maturity" factor may be the cause of early hatching? I had some eggs of a very early-maturing strain of White Leghorns in my incubator with some from my own Black Leghorns, which were normal in this respect. Last year pullets from the same sources began to lay, the Whites at 4½ to 5½ months old, and the Blacks at 5½ to 6½ months old. The White Leghorn eggs began to hatch on the 19th day, and were practically finished by the evening of the 20th day; while the Black Leghorns eggs began about mid-day on the 20th day and did not finish until the morning of the 22nd day.
>
> (2). There seems to be some difficulty in span-roof houses of any depth in getting enough light at the back. It also seems to be the general opinion that houses should face south or south-east. Why? Would it not be more satisfactory to take a leaf out of the Horticulturist's book and set out span-roofed houses north and south like glass-houses, with windows to the east and west, with proper ventilation under them? Personally, I can see no objection to this method, while the provision of light would be very much easier. But perhaps you or some others could give reasons against this."

His suggestion to me seems a very probable one, and I should like the opinion of my readers upon the subject.

By this morning's post I have a letter from a lady in which she mentions that two batches of eggs hatched prematurely by about two days. In both cases the hen sat very well (it is worth remarking that these eggs were hatched under hens), but as the chicks hatched they just drooped and died—they did not even dry. The eggs were left with some blood and jelly matter in them. Nine chicks survived out of 36 eggs, and these are very strong. My correspondent says she has always hatched under hens and has never seen such a thing before. The eggs were a cross—Light

Sussex and Leghorns. She is quite unable to understand the reason and wants my opinion and advice.

Frankly, I cannot help her. I have frequently known eggs to hatch prematurely in an incubator. Anyone with fair experience of incubating has known that to occur, but under hens it is a different matter, and I can only attribute this to some local condition which caused an excessive heat to be generated. That the early-maturing factor may, as Mr. Wimberley has suggested, be a cause of early hatching, is extremely improbable, but it would not, as in the case where a machine was run at an excessively high temperature, cause a high mortality. In the latter case there is most frequently non-absorption of the yolk.

BROKEN YOLKS.

I have received the following letter from Mr. H. Nathan in reference to broken yolks.

I referred a week or two ago to our experiments on the Experimental Farm, and the large percentage of broken yolks we found to be from one pen. Tests which we have made with incubators indicate that though a high temperature at the start may be a factor, it is not the only factor, for we have found that when eggs were placed in an incubator at 100 degrees, and the machine left open for several hours that we still had an equally high percentage of broken yolks; and even when started at 95 degrees and allowed to warm up very gradually, the percentage was equally high. This would point to some weakness with the stock birds. On this point, however, one cannot be very definite, and further investigations must be made.

I cannot agree with Mr. Nathan in his statement that the incubator running on the high side for 24 hours would hardly break a yolk. He must remember that a broken yolk is really a ruptured blood vessel. I do not think the aeroplanes overhead would be the cause. Perhaps some of our members would like to express an opinion on the subject : —

> "Dear Sir,—I think it would be of considerable interest to members if you dealt one week on the subject of broken yolks, and perhaps it would throw some light on an experience I have just had, and which I am anxious to fathom.
>
> I have hatched several thousands of eggs this year (mainly my own), and up to a certain period I do not think the broken yolks have averaged 3 per cent.
>
> A week ago I filled up a section of my Baby Mammoth with 150 Wyandotte eggs from a pen where the cockerels had been fighting. I foresaw the possibility of some trouble, and when I tested yesterday I took out 46·55 clear, the rest broken yolks. So I said to myself: "The fighting evidently disturbed the hens more than the cocks."—that was my only immediate explanation.
>
> Then I went on to test another 150 I am hatching, received from a farmer who lives half a mile away—not the first lot this year, and I hardly remember seeing a broken yolk among his previous lots. I was astonished to find practically the same result here. I took 42 out—nearly all broken yolks again.
>
> Now these two lots are in different sections so they could hardly have received the damage in the incubator. The incubator ran on the high side for 24 hours, but that would hardly break a yolk! Can you offer any suggestions? The broken yolks of my farmer friend are mainly Black Leghorns, the heavier varieties not suffering so badly.
>
> We get aeroplanes overhead at times, and had some about this time. That is the only suggestion I can offer. If you can put me wiser, I shall be very thankful.
>
> P.S.—My self-turning trays I pull across myself. Have done so throughout the season. If the pull was too rapid might this cause it?"

THE UTILITY DUCK CLUB.

The Year Book of the Utility Duck Club has been received and once again we have to heartily congratulate the Editor on such a very useful production. It is interesting to note that the Council has decided, at its last meeting in December, to try to make an effort to publish quarterly, some kind of journal, which should be extremely useful.

We note too that Capt. Varden has been appointed Assistant Secretary, and no doubt Mr. Carrington will be pleased to have his help.

There are some useful articles which members will no doubt appreciate, including "Detecting the Sexes of Day-Old Ducklings." by Dr. Hennepe, who concludes his article by remarking: "Some years ago, breeders told me that it was only possible to perform this operation with Dutch ducks; this is really nonsense, for this year I hatched hundreds of English ducks, and could very easily detect the drakes which were killed at once."

I am pleased to read Mr. Montagu May's article on "Utility Aylesbury Ducks," and particularly interested to note his statement that, "allowing for all costs, his experience is that there is less risk and considerably more profit attached to Aylesbury ducks than to any other line in the poultry industry."

Miss Barbara Raye writes on "The Rearing of Ducklings on Dry Mash," and begins her articles by stating: "Hardly a day passes but what I call down a blessing on the man who invented Gunboots, also on the inventor of dry mash feeding." She has been very successful in feeding on dry mash.

Mrs. McIver writes very interestingly on the "Duck Industry in Scotland," while Major Plummer advocates the "Marking of Ducks"

Eggs." Readers will be surprised, however, to learn that he is told there is an increased demand for marked eggs in the London dairies.

Lt.-Col. McConnel has something to say on the economic feeding of ducks on free range, and I note he states that they have found that for some reason or other maize gave remarkable results, particularly in bringing ducks on to lay, "although one may hold, theoretically, judging from its analysis, that this would not be the case."

Capt. H. Maxwell's article on "Swimming Water and Egg Production" will surprise many "duckers," for contrary to expectations, the swimming ducks gave much better results than those which have no pond to swim in. A comparison of two pens showed that the former laid at least 25 per cent. more eggs than their sisters which were without water.

Mr. Bear writes on "Fruit Growing and Duck Runs."

The Utility Duck Club is in a very healthy condition—not only financially, but it has an energetic and enthusiastic Council, and its "Year Book" will appeal strongly to all practical "duckers."

I should have mentioned the "Duck Egg Campaign Competition" inaugurated by the Council. The first prize is £5, second £3, third £2, with consolation prizes of five shillings for other competitors whose ideas will be utilised in the Campaign. The competition closed on 31st March, but I only mention it here as an instance of the activity and enterprise of the Council.

COUNCIL MEETING.

The monthly meeting of the Council was held in the Memorial Hall, Farringdon Street, on Wednesday, April 7th. In the unavoidable absence of the President (Mrs. Hunter), Mr. J. G. Kitson presided.

Present :—Mr. J. G. Kitson (Chair), Miss Maddison, Mr. J. Smart, Mr. A. Harold Paine, Mr. J. H. Dowden, Mr. Bostock Smith, Mr. E. J. Meekings, Mr. Lester Spurgeon, Mr. F. W. Wait, Mr. P. Hedworth Foulkes, Mr. A. E. Hamlin, and the Secretary.

The Minutes of the last meeting were read, confirmed, and signed.

Secretary's Report.—The Secretary reported that 164 new members had been elected during March, this was 60 more than the corresponding month last year and created another record. The Food Purchase Scheme was proving a great success, and members greatly appreciated its benefits. In six months they had purchased over £20,000 worth of food for their members, and the turnover was increasing at an extraordinary rate. The large firms were very keen to co-operate with them. Arrangements were in progress for a stand at the Three Counties Agricultural Show, to be held in Gloucester during June.

Treasurer's Report.—In the absence of the Treasurer, his report was read, declared satisfactory, and adopted.

Co-opted Member.—The Secretary announced that a letter had been received from the Secretary of the Keighley Branch, stating that the President, Mrs. Clay, was pleased to accept the Council's offer to become a co-opted member in order that Yorkshire and the North might be better represented. The Secretary was instructed to write to Mrs. Clay, intimating the Council's pleasure at her acceptance of the offer.

Resolutions from General Meeting.—The Council appointed the following committee to deal with the resolution passed at the General Meeting with reference to the compulsory blood-testing of all registered stock :—Miss Maddison, Mr. Dowden, Mr. Meekings, with power to co-opt.

Consideration of Mr. Farnell's resolution in reference to the weights of registered birds was postponed until the next meeting.

Export.—A letter from a Danish correspondent was read having reference to the exportation of stock from this country, and asking if the S.P.B.A. could assist in this matter. After consideration the Council, in view of the importance of the subject, appointed the following committee to deal with it :—Mr. J. Smart, Mr. P. Hedworth Foulkes, and Mr. Meekings.

National Poultry Council.—The Council, after a lengthy discussion, decided that the Stock Poultry Records' Scheme should be supported in principle, although the opinion was generally expressed that it was hardly practicable in its present form.

Experimental Farm.—The Secretary reported that the hatching from the intensively-kept birds had not been good, although the general health was excellent, and the chicks were strong and vigorous. Their efforts were now concentrated on breeding enough stock for their experiments next autumn. Two birds had died; symptoms were those generally associated with layers' cramp. Post-mortem examination had revealed slight congestion of the lungs, not sufficient to cause death, all the other organs were healthy, with the exception of the ovaries, which were diseased. It was proposed to send another case for bacteriological examination, as it was suggested that the trouble might be associated with B.W.D. Arrangements had been made for the committee to visit the farm on April 28th.

"Eggs" Committee Report.—The Chairman reported that the circulation of "Eggs" was steadily increasing, and that they had every reason to be gratified with the continued success of their journal.

Affiliation Fee to National Poultry Council.—The Secretary said that this would be due on May 1st this year; they would be paying on 6,800 members. Authority to pay was instructed to be sent to the Treasurer.

Next meeting was fixed for Wednesday, May 5th.

THE WELLINGHAM EXPERIMENTS.

THE INTENSIVE REARING OF TABLE POULTRY.

I have received from Miss Malcolm the following report of the above experiment, which is most interesting, and we shall await with impatience the final results.

At eight weeks old the average weight of the chicks is not quite so good as last year, but the difference is hardly worth remarking, and we must remember that we are dealing with double the number of chicks. Last year the chicks were wholly fed on dry mash, and this year they have been given a little wet mash in addition.

3rd REPORT OF EXPERIMENT FOR INTENSIVE REARING OF TABLE POULTRY, WELLINGHAM, 1926.

The chicks in the above experiment are eight weeks old. At to-day's weighing the total weight was found to be 292 lbs. 3 ozs., the average weight therefore being 1 lb. 7.375 oz. The average increase of weight in one fortnight, between 23rd March and 6th April, is 10.435 oz. The twenty heaviest birds weigh 35 lbs. 5 ozs., the average weight being 1 lb. 12.25 oz. The weight of the twenty smallest birds is 20 lbs. 2 ozs., the average weight being 1 lb. 1 oz. The usual disparity in weight is of course noticeable, the heaviest cockerel weighs 2 lbs. 2 ozs., and the heaviest pullet 1 lb. 10 ozs.

In order to bring the birds on for the crates, dry mash has been discontinued, and four wet mashes a day are being given at three-hour intervals Grain is onl-- being trough fed once a day, an hour before dusk. What the birds do not consume is thrown on to the straw at the back of the house to afford a little exercise early in the morning. Either greens or onions are fed daily to the birds. Cod liver oil has been discontinued. Separated milk is fed when available (about three times weekly).

The birds are in the very best of condition, fully feathered, and show every sign of perfect health. Not a single bird has been lost.

The house, 20 ft. by 15 ft., is rather crowded, and it seems possible that it will be necessary to finish the birds by separating at the next weighing the pullets from the cockerels, and accommodating the latter separately. If, however, the birds remain as well as they are at present, this will not be done.

The side of the house is left open day and night, and it was noticeable in the heat wave at Easter that the temperature in the house was rather high. However, apparently this had no ill-effect upon the chicks, which appear at the moment to be well as extensively-reared birds. B. MALCOLM.

I understand that Miss M. F. Peter has taken over Coaley Poultry Farm, Gloucester, which was so well-known when the proprietress was Miss Edwards. Miss Peters informs me that she is an old pupil of Miss Edwards, and she hopes to carry on the traditions of the farm.

Some Fruit-Growing Notes

to help Poultry-Keepers.

By F. W. WHEELER, F.R.H.S.

"Here we are again?" as the clown says! I fear that I have kept my readers waiting, but am now back again to more regular routine occupations after the holiday interruptions.

With "fruit growing notes"—back to what? A digression from apples to **Vines**—and why?—because I have a fancy that some of those many poultry-keepers who buy a country property often find a conservatory or greenhouse, usually containing a grape vine, and they are wondering how to treat the masses of shoots that are growing in every direction. At this time of the year I am often asked for guidance; in fact, I have just received a letter asking what to do with all the new growths; so that decided me to make the digression.

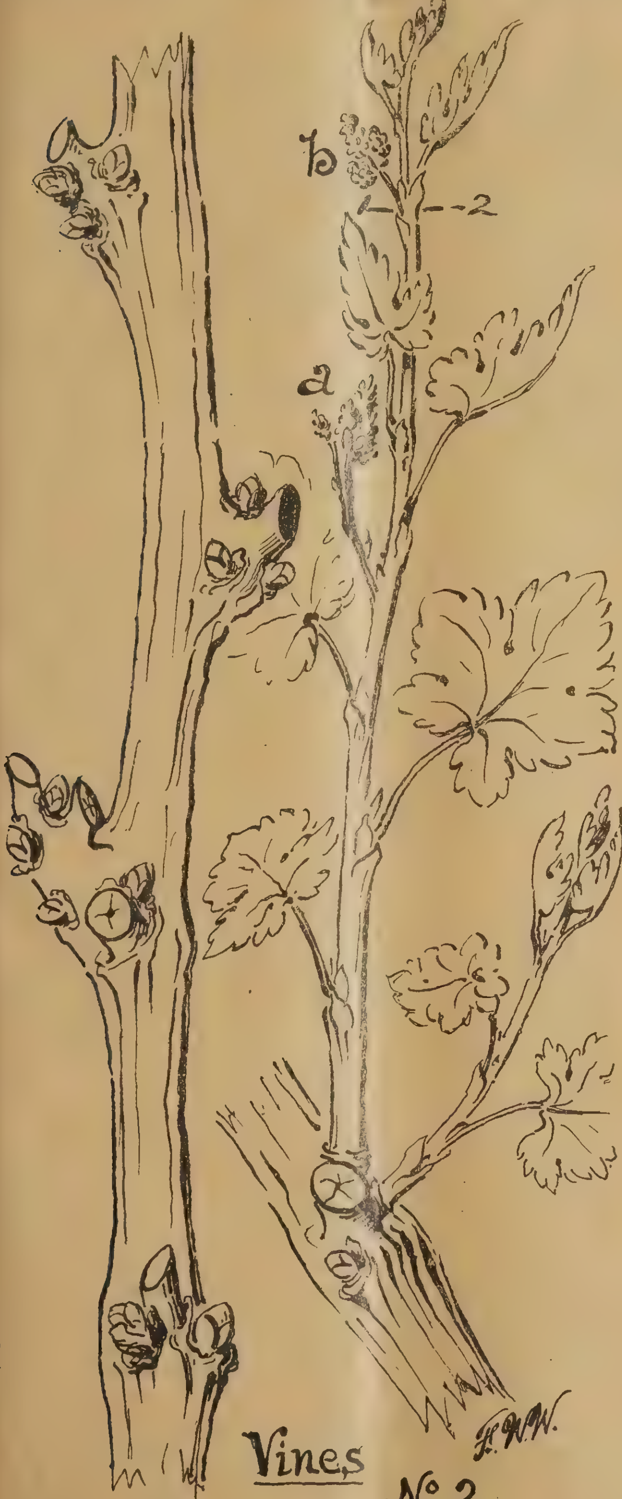
I think illustrations with notes will possibly be the clearest way of showing the "modus operandi," and as we are now in April I must take it for granted that all last year's wood was cut back before the end of January, and that the main rods were thus spurred, leaving a knotty appearance very similar to that of my sketch No. 1; only on this drawing I have indicated other buds of new shoots which generally start to break out during February or March, according to whether any artificial heat is given or not. It is no good dwelling to-day on details of the work that should have been done then, but rather give fuller notes of how to treat the numerous shoots which by this date have reached anything from 1 to 15 inches in length.

Sketch No. 2 (taken from my own vine) is a good average sample of a shoot, and I have indicated at the spur of the main rod a bud and also a young shoot. There might be five such new growths, but only the strongest one is retained and **all** the others removed. The sooner this is done, before the unnecessary shoots makes much growth, the better it is for the selected one that is to be retained.

Before dealing with the treatment of fruit-bearing shoots, I ought to mention that you do not require on a rod more than one in every ten or twelve inches. Although the spurred joints come every five or six inches apart on the rod (Sketch No. 1) every other one can have all shoots removed, or a shoot left and kept pinched back to four inches. No fruit allowed or you will over-crop the vine and probably cause shanking and other troubles.

Likewise, when selecting which shoots to retain for fruit, choose those which grow in a direction from the glass roof; also keep the main rod quite nine inches from the glass.

Referring again to Sketch No. 2. I have shown at "a" and "b" the flower (not fully open); the second one "b" should be removed as generally the weaker of the two. Do not be tempted to have two bunches of fruit on one shoot. The next necessary point to note is the pinching off of the head of the shoot at 1—2, leaving two leaves beyond the first bunch (some like to retain three leaves if vine not crowded).



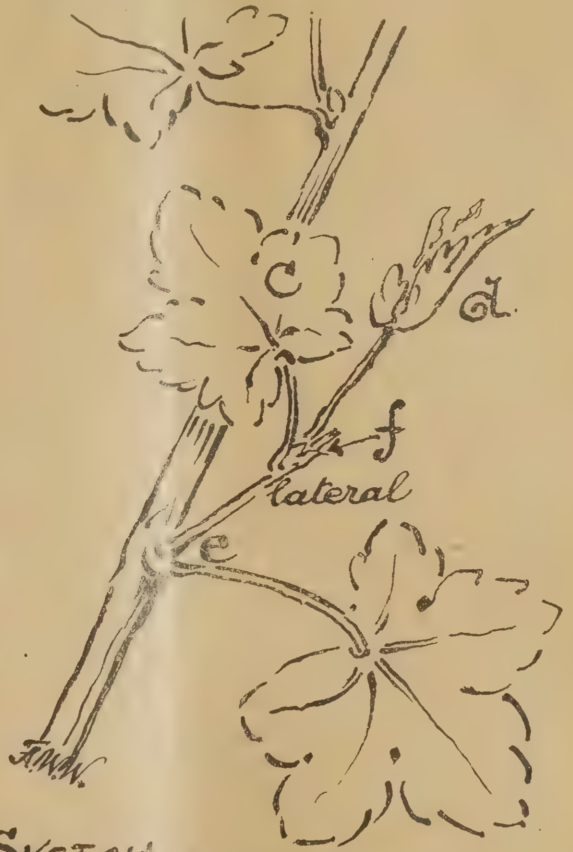
Vines

Sketch No 1

No 2

This pinching of the head will concentrate the energy into the bunch of fruit. I have seen them left (for want of knowledge) growing three and four feet long, and consequently insignificant fruit obtained.

A natural result from stopping the head will be that new shoots or "laterals" will start into growth at the joint of every leaf. I have therefore made a third sketch to show the treatment of these laterals.



Sketch No 3 Vines.
Showing treatment of laterals.

All laterals between the fruit and the main rod will be completely removed at point "e." For laterals coming at the two (or three) leaves left beyond the fruit there are two operations: The first is to pinch off the head at "f," leaving **one** leaf "c," and as soon as other shoots grow "d" they should be removed, leaving only leaf "c."

In closing to-day's notes I had better add that if your vines are very forward and no thinning of shoots yet started, do not start removing all at once, but spread it over several days, removing of those that will not be wanted, the largest ones first.

The Goat-Keeper's Diary

IV.

By **MRS. G. EPPS.**

14th APRIL.—The elaborate system of balanced rations, that yields such satisfactory results with herds of cows, is, in my opinion, unnecessary for goats. By this I do not mean to imply that when goats are put on to a systematic balanced ration that they do not do well. Most of the big goat breeders have adopted this system with good results. What I do mean is, that the system is not one that can be made into a commercial success with goats. The goat is a creature that will take a great variety of green food which is of no use to cows—in fact, is rejected by them. Hence the name " poor man's cow " is literally true.

The intensive goat-keeper—the man with no pasturage or hedgerows—is now at the most trying part of the year as far as the supply of greenstuff is concerned. Spring cabbage is not likely to last long, winter greens are all consumed, and the rye that was sown in the autumn is not yet ready to cut. There are, however, many minor sources of supply—i.e., rose prunings, the side shoots from many shrubs, and all sorts of greenstuff from the copses, and even lawn clippings if they are fresh and clean. Shrubs that must not be given to goats on account of their poisonous nature are Yew, Rhododendrons and laurel. Privet, said to act as a poison on some animals, is much appreciated by goats. Ivy is excellent for improving the milk yield. In one garden that we owned there were many fruit walls infested with a heavy growth of ivy, which formed the greater part of the winter diet of the goats. During that winter we had more milk than in any winter before or since. A crop that is used largely in France for green fodder is buckwheat. It grows quickly, and can be sown at intervals from February to August, and is fit to cut in ten weeks from the time of sowing. Maize is a very profitable green fodder, and can be sown now and cut as soon as it attains a convenient height. Of the brassica family sowings can be made in succession from now onwards ; they are of great value. With these I find that the leafy parts are best fed to the poultry, and the goats prefer the stumps, which, if tied up in their stall or run, they will consume right down to the roots with great enjoyment. With the leafy parts they are rather wasteful. The importance of plenty of greenstuff cannot be overrated ; for goats, it is the ideal food. If there is an ample supply through the late spring and summer, no money at all need be spent upon other foods.

(Continued at Foot of Next Column.)

Aspergillosis.

This disease affects both adult birds and young chicks, causing great mortality among the latter, and being frequently associated with B.W.D. in the same subject ; and this may lead to an error of diagnosis, unless a bacteriological examination as well as a post-mortem examination is made.

Cause.—The disease is caused by the spores of the fungus Aspergillus fumigatus, which is widely distributed in nature, being taken into the body either by inhalation or with the food, and which cause inflammation of the parts they settle in. Incubator chicks are often infected by the incubators and brooders, the heat and moisture being favourable to the growth of the fungus, and hen-hatched chicks from the straw of the nest boxes ; day-olds by being packed in musty hay or chaff-litter. A common cause of an outbreak is spoiled food or litter that has gone mouldy from being attacked by the fungus.

Lesions.—In this disease tubercle formation takes place in the lungs, and sometimes the fungus is found implicating the air sacs and heart sac, but both the intestines and liver may also be involved, and both spores and the mycelium of the fungus recovered from them. In very acute infections death may take place before actual tubercle formation takes place, the lungs then showing only the lesions of pneumonia.

The only effective treatment is prevention, viz., the avoidance of musty foodstuffs and litter, and the disinfection of premises and equipment, and the removal of materials that are favourable to the growth of the fungus. As a tonic to raise the general tone, 40 grains of citrate of iron and quinine may with advantage be added to every gallon of the drinking water, but little hope can be entertained of the recovery of birds already affected with the disease.

A form of waste that is very common among goat-keepers occurs in the spring, when the usual slaughter of the innocents takes place. If the skins are removed—a very simple job—and pinned out on a board until dry, they can then be sent to a tanner, who will cure them at a very trifling cost. These pelts are very beautiful and durable, and can be made up into many useful things—motor or pram rugs, gloves, etc. A member of a local women's institute has during the last two seasons turned all my skins into motor gloves. At birth, of course, the skins are in ideal condition, but if for any reason an older goat has to be killed, the pelt is only worth keeping if it is free from the annual moult.

Correspondence.

EGG-SELLING SCHEME.

Dear Sir,—Would it not be possible for the S.P.B.A. to run an Egg-Selling Scheme similar to the Food Purchase Scheme? Members to grade their own eggs as an essential beginning. All eggs in one district, say in most cases one county, to be collected and dispatched from one station to an appointed salesman who would sell for the Association, not the individual producers. The Association to deduct a percentage for expenses; each member to receive a receipt for eggs from the collector. As for the collecting I should think a member could be found in each district to take this on, his remuneration to come out of the percentage deducted; anyway I would be willing to do so.

The members of the S.P.B.A. throughout the country must have a very large number of eggs each week, and such a scheme would surely help to give the home-produced egg a better standing in the home market.

I think I am right in saying that we are the largest Association of egg producers in the country, and it seems to be up to us to do our best to give the British egg first place in the British market.

Yours truly,

JOHN E. TINDAL.

MARKETING OF EGGS.

Dear Sir.—I have the greatest pleasure in enclosing two pamphlets which I hope will prove of assistance to you and all concerned in promoting the marketing of English new laid eggs.

The illustrated pamphlet accompanies cases of Irish eggs, packed by Armour and Co., and shows how that huge American firm has organised the Irish egg and poultry industry almost to perfection.

The other illustrates how the Free State Government intends to handle the question.

Probably I hold the unique position of being an Egg Importer, and my wife a utility poultry farmer and S.P.B.A., but both keen advocates of the English egg and poultry products.

From my position I see both sides of the thorny question of the English versus foreign egg, and must give first place to the latter for an all-year-round standard of quality and marketing against English eggs collected under similar conditions.

For instance, it is quite wrong and ignorant nonsense to talk about the filthy and bad eggs from Russia, China, Egypt, etc. I only ask you to enquire of any confectioner whose business depends on maintenance of quality, how these goods compare with the English egg, at its dearest months when the foreign eggs come on the market in their heaviest shipments.

Does your English poultry farmer study country of origin when selecting a good sample of feeding stuffs? If a business man, he buys on sample and price, irrespective of foreign origin, and so does the man who has goods to produce of which an egg is a composite part.

Do let us realise and fully appreciate the quality we, as egg producers, are up against, and not ape the ostrich, but meet it in the only way to beat it, and that is by a realisation and appreciation of its standard.

The foreign egg has won its position solely by quality and price. My own firm has travellers calling on the shopkeeper; they are all human, and suffer from the inevitable failing of following the line of least resistance, and are paid on commission, and naturally sell the article that gives least trouble and greatest satisfaction. Their biggest turnover is, regrettably, the foreign egg, and I, as head of that department, simply supply a public demand.

Let me send a word of encouragement to all who have the industry at heart. In my considered judgement I say the English egg has the market at its feet, if they will only maintain quality, grade, and regularity of supply. For example, we get beautiful English eggs on a falling market, and most atrocious goods and irregularity on a rising market. I am, of course, taking the average, and not citing individual cases.

The English egg, before it can be handled commercially, must be packed in a non-returnable free package. I know many huge egg firms who handle thousands of cases weekly who will not countenance the trade on this one reason only. My own firm has to record all packages of English eggs in, out, and back again, with the attendant difficulty of tracing outstanding cases, which, in almost every instance, leads to strained relationships with the offending customer, who, unfortunately, as in all businesses, has always to be right.

The marking of English eggs will not help, in my opinion. We handle thousands of cases of eggs of all nationalities; in fact, we follow the spring of the year round the world for our supplies, and definitely know that the stamped egg does not appeal to the purchasing public generally, who, after all, is the one to please.

Our English egg has the greatest factor in its favour—the market on its doorstep, and can, therefore, give the virtue which is demanded of all eggs—newness.

You will get your reasonable price if you will maintain quality and your sales are guaranteed. I definitely know this, for my wife's produce commands a better price than the average, which is not equal to demand purely on regularity of supply and standard of quality.

In earnestness of national interests and to be quite frank, I must hit hard and straight, and have no hesitation in saying I find the average poultry farmer not a business man. Therefore I suggest some means of organised collecting centres, with a business man closely in touch with the import and egg trade generally as head and selling agency.

The Danes watch the import of eggs into this country and have also a close knowledge of our English supply, and ship and market accordingly; in our glut seasons the Dane keeps his price well out of reach, so as to allow him to preserve for our winter trade his otherwise cheap eggs. He simply keeps his connection by offering eggs which he knows we cannot buy on account of a glut of English eggs, and when we have all finished wailing our losses over here, simply by no organisation at all, he steps in and takes the profitable business again—for evidence watch market prices.

In a few weeks I shall be fixing up my winter contracts of pickled Danish eggs; where in England can I look to one centre for that quality?—where, if I have a complaint, I can put it on one centre and get satisfaction or call an arbitration board, and if a genuine complaint, stop contract?

This, in my opinion, is the essence of trading through one source, and appeals strongly to all commercial houses.

If I can be of the slightest assistance with regard to foreign methods of packing, etc., I shall be pleased to render any aid which will further the profitable English new laid egg industry.

Yours very truly,

NORMAN PRESTON.

BOARD OF AGRICULTURE FOR SCOTLAND EGG-LAYING TEST, 1925-26, at Seafield, Roslin, Midlothian.

REPORT FOR FIFTH PERIOD (4th Feb., 1926, to 3rd March, 1926.).

During the fifth period of four weeks there were distinct contrasts in the weather. The opening days brought with them easterly winds and a slight fall of snow, after which a short spell of exceptionally mild damp weather set in. During the last days, however, cold, boisterous winds blew from the west, accompanied by showers of sleet and rain. The general health of the stock remains satisfactory. Moulting was less prevalent, only 13 pullets being affected. Five pullets were removed to broody coops during the period. The total number of eggs produced during the period was 8,395, an average of 16.39 per bird, as compared with 6,853, and an average of 13.30 last month, the average since the beginning of the Test now standing at 58.88. The highest individual record for the month was 25 eggs laid by each of the three following pullets:—No. 368 (pen 62) Rhode Island, Messrs. J. B. V. and W. Cummings; No. 440 (pen 74), Rhode Island, Mr. J. A. Terrace; No. 132 (pen 22), White Leghorn, Capt. J. F. H. Houldsworth. The eggs laid by the two first mentioned were all of the first grade. Miss Harrison Bell's pen of Buff Rocks, No. 93, now holds first place in the Test with a score value of 475.

There has been a further increase in the number of eggs produced in the Duck Section, the total for the period being 1,637, and an average of 17.60 per bird, as compared with 963 and an average of 10.35 last month, the average since the beginning of the Test now standing at 37.11. Each of the following four ducks laid 28 eggs in 28 days:—No. 39 (pen 7), Khaki-Campbell, Mr. G. H. H. Simmons; No. 42 (pen 7), Khaki-Campbell, Mr. G. H. H. Simmons; No. 26 (pen 5), Khaki-Campbell, Major J. G. Dugdale; No. 62 (pen 11), White Runner, Mr. H. S. Godsmark. The two first mentioned laid 28 first-grade eggs. Mr. Simmons' pen still stands first in the section with a score value of 322.

The following tables show the number of eggs laid by each pen during the four weeks under report, the score value, and the position in the competition of each pen at the end of the period. In the event of two or more pens being equal in score value, priority is given to the pen scoring the largest number of first-grade eggs:—

(Continued at Foot of Next Column).

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, wi answer all queries relating to Ducks. In cases of extren urgency answer would be direct, otherwise they will appea in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent t Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarrin Road, West Worthing

Bodies should be packed and sent by post immediately afte death, marked for immediate delivery. The fee is 5s. for reply by post. The name and address of the sender shoul be distinctly marked on the package. Advice of dispatch an fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules whe sending birds for post-mortem examination, and also as t writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to no members of the S.P.B.A. on payment of a fee of 2s .6d. pe letter. These are answered by the Editor, and relate t every phase of poultry-keeping except post-mortem examina tions. Members of the S.P.B.A. are entitled to a reply by pos **by the Editor by virtue of their membership (NOT fro Major Saunders).**

All questions should be addressed to the Editor. Major Saunder does not reply to questions either by post or through thes columns, except in relation to Post-Mortem Examinations.

New Reader (S. Devon). I do not think you could hav made a better choice than the Light Sussex. If you are goin to make a success of poultry-keeping don't listen to everybod who seeks to give you advice. Keep to one system, with suc modifications as your observation and local conditions teach yo are necessary. Light Sussex are not a delicate breed, the are not slower to mature than the Plymouth Rock; as a farmer fowl I would prefer them to any other breed. They shoul not be hatched later than the first week in April. (2) You February-hatched pullets would be fit to mate next year, I can find space to reply to your questions on line-breeding here, bu as your object is egg production, you will be wise to leave i alone. Your neighbour who told you that line-breeding wa necessary for heavy egg production was very much mistaken.

M. M. (Lincoln). I have examined the chick mash yo send me, and the only fault to be found with it is the price which no one keeping poultry for profit can afford to pay. It is in no way accountable for the condition of the chicks. From what you tell me I believe this is due to over-crowding, and you should remove them from the brooder at once, place them in the colony house, and construct a perch of plasterer's lathes, nailed half an inch apart, eight or nine in a row, and

EGG PRODUCTION OF LEADING PENS AT END OF FIFTH PERIOD—3rd MARCH, 1926.

Figures are Eggs and Points respectively:—

Section 1—White Leghorns.—J. B. V. and W. Cummings, Penicuik, 424 418; J. Prentice, Uddingston, 466, 388; T. Baillie, Bute, 387, 368.

Section 2—White Wyandottes.—A. Thomson, Avonbridge, 459, 457; Lady V. Astor, Meilkeour, 509, 454.

Section 3—Rhode Island Reds.—Mrs. M. Logan, West Kilbride, 436, 435; I. Cooper, Carnwath, 427, 426.

Section 4—Non-sitters other than White Leghorns.—J. Huntly and Son, Coldstream, 475, 420; White Heather Poultry Farm, Tullibody, 367, 360.

Section 5—Sitters other than in 2 and 3.—Miss Harrison Bell, Welwyn, 499, 475; The Misses Davidson and Chisholm, Gollanfield, 553 474.

Section 6—Ducks.—G. H. Simmons, Brimscombe, Glos., 386, 322; O. C. Brown, Scunthorpe, Lincs., 327, 290.

18 inches off the ground; place some hay on the top of this. They will soon learn to perch, and this should effect an improvement; it is no good your giving them cod liver oil or anything else under present conditions. (2) No, we don't care to publish records of large eggs in these columns, you see I am afraid to begin it, there is always someone to go one better than the last—Excelsior is their motto.

Troubled (Margate). If you have so many soft-shelled and double-yolked eggs, your feeding must be very much at fault. As you have not sent me details I cannot help you much at present but unless you alter it, you will have serious ovarian trouble and prolapsus. Reduce the quantity of mash by one half, and feed only oats as the grain feed; having done this let me have details of your feeding, and we shall see what is wrong. (2) Anconas are very good layers of large eggs, they are rather of a nervous temperament and want to be carefully managed. You could hatch them now, it would not be too late. (3) I agree with your friend, it is not profitable to hatch for egg production after the first week in May.

G. S. (Chippenham) writes that he has brought off a hatch of chicks, hatching 69, 22 dead in shell, and 9 clears, and wants to know if I can explain the cause of the dead-in-shell, as he has worked his machine according to instructions, particularly regarding the moisture device. I am afraid it is impossible to do this. As the percentage hatch was a good one, we must assume that there was nothing wrong with the incubator conditions. Every egg laid is not a hatchable egg. There may have been some defect; extreme hardness of shell, tough membrane, or apart from that, the germ may have been weak and there was lack of vitality to hatch. This question so often comes up that I would ask readers to bear in mind the fact that every fertile egg is not necessarily a hatchable one, and they must take this into consideration when they are running their incubators. Further, the percentage of hatchability from a pen may vary considerably during the season. I would advise my correspondent to run the incubator as he has done before, and not to modify it because of this percentage of dead in shell.

"Perplexed" (Newick) writes that he will be greatly obliged for my opinion on the following. On leaving his farm in 1922 he retained some old birds, placed them on part of an old brick (clay) field, facing north, low lying, very well housed, with alternate pens. The feeding he gives, but to come to the point. His first year's hatching was very poor, so he purchased eggs from a good source (he only breeds from birds which have never looked back), and when fully matured, properly mated, hatching and rearing very poor: just the same as from his old stock. The chicks hatched out strong and lusty, but about the fifth day they began to flag and cry, and sometimes there was great thirst, or a tucked-up appearance, or scouring, with unabsorbed yolk. Incubator, hen-hatched, hen or brooder reared just the same, coops are large, and were well ventilated with sanded floors. The few that get through grow out strong and well. Eggs he has disposed of to customers; some report chicks weakly, others say hatching fair, chicks do well. He has given sulphate and citrate of iron to the birds. My correspondent should surely have sent some of these chicks for post-mortem examination. It is a point I cannot understand that these heavy losses are incurred time after time before any advice is asked, and when the advice is given it is usually too late. It is just possible that the results may be due to chill. In that case forty grains for citrate of iron and quinine should have been given to the gallon of drinking water. I am rather disposed to think this trouble is due to B. W. D., and that the writer has several carrier hens among his stock. That is a point on which he must satisfy himself, and the best thing he could do, if he has any further heavy mortality, is to send some of the chicks to an expert on disease for bacteriological examination.

E. A. D. (Oldham) writes to know if I can tell of any remedy for chicks which are pasted up behind. He is losing them three or four a day from this cause. One or two appear to be recovering, but they are stunted in growth. The chicks show the first signs of the trouble at ten days old. I am afraid I cannot help my correspondent. I imagine the disease is Coccidiosis, from his description. It is a pity that some of the chicks were not sent for post-mortem examination. The only advice I can give him is to remove the healthy chicks to fresh ground, disinfect the Colony houses in which they are running, and give fifteen grains of powdered catechu to the gallon of drinking water and allow them nothing else to drink. It is hardly likely that his further losses from this particular breed will be very severe, as the chicks show greater resistant power, but those to which he refers as appearing to recover, but which are stunted in growth, it would be wise to kill. They would never be good birds, are simply carriers of the disease, and are infecting the ground.

C. McF. (Brockenhurst) wishes to know what he can do, in the absence of a foster mother or broody hen, to rear approximately 50 day-old ducklings from incubators. He could put these with a hot-water bottle wrapped in flannel, or with a hurricane lantern placed in a small box, getting it at a temperature of about 75 denrees and gradually decreasing. Ducks do not require so much heat as chickens. With regard to the feeding: they can be fed generally on the same lines as chickens. My correspondent should read the article by Miss Sayers, in the Register, on dry mash feeding of ducks, or he might try the following mash: Biscuit meal, scalded or soaked in milk, dried off with middlings, fed every two hours; maize meal one part, Sussex ground oats one part, bran two parts, dried off with middlings.

"Australian" (Uffculme). The sample of alfalfa meal is a little stalky, but at 15s. 6d. per cwt. delivered the price is fair. In answer to your second question. I would not care to breed from chicks which have survived an attack of Coccidiosis. It is always better to mix the mashes by weight instead of by measure, and I have not time to give the Chick and Grower's Mash by measure here. If my correspondent turns to page 102 of the Register she will find there the weights of each ingredient given per quart. Thus a quart of broad bran weighs 4¾ ozs. a quart of Sussex oats weighs exactly one pound, and a quart of fish meal 1 lb. 7 ozs. A little calculation on her part will enable her to work out the separate ingredients of the mash by measure, as the weights of all the ingredients are given.

E. V. (Brightside) writes that he is in a difficulty. He has mated White Wyandotte hens with R. I. Red male, and has advertised chicks as sex-linked, but unfortunately they have come all colours. Some are black, some a shade lighter, some are cream ground with a dark stripe running down the back, some buff with a dark stripe, some look like very light coloured Reds; some are cream, more like Wyandottes pure, and some have just a little spot of black on them. The Wyandotte cockerel, from which the hens were bred, threw a lot of chicks last year with black feathers, and he himself had a black feather in his tail.—Now in answer to my correspondent. This is a little difficult. We must assume that the Wyandottes contained some alien blood. The chicks which are buff with the dark stripe will be pullets, as will be the very light coloured Reds, but the creams and blacks and others will probably be cockerels. I cannot say anything definite on such a mixed lot as this, but it would appear to be unsafe to advertise day-old pullets from them.

Crop Bound (Kirkham) has a pullet suffering from impacted crop, due to long "wiry" grass. Kneading the crop has given no relief; it rarely does in such a case, and there is nothing for it but an operation. This is not difficult if the operator has someone to hold the bird Pluck a few feathers from the middle of the crop, damp those around the edge to prevent dust from getting into the wound; with a sharp knife cut through the skin at the middle of the crop, not more than an inch long, then cut through the crop itself. The cut here should be about ¾ of an inch long. As the crop is distended the opening will gape, and cause of the trouble will be in full view. The best thing with which to remove it is a buttonhook. Having done this, feel with the finger into the crop to see there is nothing remaining, then wash it out with clean warm water, sew up the wound, using three or four separate stitches, each stich tied by itself, and do the same thing with the skin. Feed on bread and milk for two or three days. (2). You are giving the chicks too much of the boiled rice; this would account for the diarrhoea. Rice has little value as a chick food, as it is almost a pure carbohydrate and contains nothing to build up frame.

R. L. S. (Selby) has lost a large number of chicks and sends me particulars of his feeding—that is, the composition of his mash, which is fed after the first 48 hours. From his description, I believe that the trouble is due to the mash being fed in a sloppy condition, and perhaps to over feeding during the first week. There is nothing in the composition of the mash to account for the mortality, but it would have been wiser had he sent me samples, as some particular ingredient may cause the trouble. (2) The blood spot is due to the rupture of a small blood vessel in the oviduct, it will soon right itself. If it had been in the yolk, the trouble would have been in the ovary.

Mystified (Bacup). Will you refer to this week's editorial? I think it will answer your question. The breeder no doubt acted in good faith, you have no reason to doubt his statement that the stock was blood tested, and he has made you a very fair offer which you will be well advised to accept. (2) The heavy mortality in this case was, I think, due to the fact that the chicks were prematurely hatched owing to the high temperature at which the machine was run; there would not be proper absorption of yolk. (3) I am glad the advice given you with regard to the Wyandottes has led to an improvement in the size of egg. If this is to be maintained you must be very particular in the choice of a cockerel, the size of the dam's egg should not average less than 2¼ oz., and you must continue to select for size of egg. (4) the pale yolk is due to your feeding and is not the fault of the breed; if you supply plenty of green food, and feed yellow in place of white maize you will soon see an improvement. (5) The samples you send are good except the fish meal, which contains rather an excess of oil; it is dear at 24s. per cwt. (6) You would not get sex-linkage if you crossed Buff Rock hens with Black Leghorn males, but you would get excellent layers. (7) You will find that most of the Black Leghorn chicks with dusky legs will be pullets. (8) Well, that would be rather like buying hair restorer from a bald-headed barber; no, don't accept such an offer.

POST-MORTEMS.

H. P. F. R.—The post-mortem examination of the chicks showed that in three of them there was an obstruction in the gullet caused by small pieces of coal or cinders, and that the tissues where this obstruction occurred were in a considerable state of inflammation. In one bird, the obstruction was half way down the gullet, and the gullet enormously dilated and impacted with food above this point. In all cases there was not any food either in the crops or digestive canals proper, the obstruction being complete.

A. W. B.—The only lesions to be discovered were those of pneumonia, and the digestive systems seemed all out of order, but they were so decomposed that it was not possible to make a culture from them to determine the presence or otherwise of B. W. D. of which the history arouses suspicion of.

G. A. N. The post-mortem examination of the two chicks showed that poisoning by phosphorus was the cause. In one, a piece of bread covered with phosphorus paste was recovered.

Mrs. B. The post-mortem examination of the young bird showed that it was affected with cholera. This is a most contagious disease that does not respond to treatment, but which dies out after taking its toll. The affected flock should be strictly isolated, and their quarters thoroughly and periodically disinfected, as well as all the equipment used in connection with them; litter, and droppings and the bodies of those that die should be destroyed by fire. It is better to kill off obviously affected birds as recovery is doubtful, and they constitute centres of infection while still living. As a preventive 15 grains of sulpho-carbolate of zinc may be added to each gallon of the drinking water throughout the period of the outbreak.

H. F. C. K. The p.m. examination of the six chicks showed no gross lesions of disease, and microscopical examination failed to reveal any traces of parasitism. The three backward ones, however, were not digesting properly, although nothing could be found to explain why; one it is true had a single gape worm in the trachea, but this had apparently caused no disturbance or irritation. I should think that the trouble was simply lack of constitutional stamina of a few individuals and nothing else, and as the remainder are doing well it seems unnecessary to treat them medicinally, but to cull out the weakly ones as likely to prove unprofitable. A good digestive tonic, however, if you wish to try it is: Powdered fennell, aniseed, coriander seed, cinchona, each half a dram; powdered gentian and ginger, of each one dram; powdered sulphate of iron, 15 grains; mix and add two grains for each bird in the food twice daily.

APPLICANTS FOR MEMBERSHIP.

Pryer, Frank, "Elm Nook," Pinkneys Green, Maidenhead, Berks.
Main, Mrs. F. E., "Albans," Barnston, Dunmow.
Mills, E. B., Cotes, Loughborough.
Hall, Miss A. M., "Shevington," Marlesford, Wickham Market, Suffolk.
George, W. B., 19, Gibraltar Lane, Haughton Green, Denton, Manchester.
Bolton, Mrs. A., Edgewick P. Farm, Cross Road, Coventry.
Humphry, Mrs. V. M., The Cap House, Pontrilas, Nr. Hereford.
Marcer, Fred, Stainton Lane, Scothern, Lincs.
Heppenstall, J. H., 67, Hollinbank Lane, Heckmondwike, Yorks.
Scott, Robert, Flanshaw Utility P.F., Wakefield, Yorks.
Quin Capt. R. B., Lily Hill Farm, Bracknell, Yorks.
Randall, O. C., Ludlos, Painswick, Glos.
Giffard, Com. H., Offham House, West Malling, Kent.
Simmonds, S. T., Avis Poultry and Wool Farm, Rattlesden, Bury St. Edmunds, Suffolk.
Hassan Arthur, Catmose Road, Oakham, Rutland.
Wiggans, John T., 6, Mill Road, Orrell, Nr. Wigan.
Fletcher, Mrs. N., Eden Brows, Armathwaite, R.S.O., Cumberland.
Clarke, M. L., Binbrook Manor, Lincoln.
Miller, Mrs. L., Maids Moreton House, Buckingham, Bucks.
Rawlings, E. J., Roseberry, Steyning.
Rigg, Harry, Nest Farm, Scammonden, Huddersfield.
Middleton, Mrs. C. M., "Glen Nook," Moseley Woods, Horsforth, Nr. Leeds.
Tebb, N., Lynch Court, Eardisland, Leominster.
Cross, Mrs. Carlton, Wyke Hall, Gillingham, Dorset.
Myatt, L., Pine Wood, Ercall Heath, Newport, Salop.
Coombes, G. W., 6, Beech Road, Dartford, Kent.
Heap, Verney, 446, Great Horton Road, Bradford, Yorks.
Samson, H., The Willows P. Farm, Ackeland Green, Pleshey, Chelmsford.
Gibson, J. H. Shore, The Home Farm, Longville, Much Wenlock, Salop.
Munro, J., Ovenstone Muir, Pittenweem, Fife, N.B.
Harper, Miss Mary, Astley Castle, Nuneaton.
Don, Mrs. G., Bankhead House, Forfar.
Hale, Miss M. E., Ballela House, Banbridge.
Coleman, Frank C., "Fern Cottage," Airton, Via Leeds.
Seel, Miss Molyneux, Huyton Hey Manor Farm, Huyton, Lancashire.
Duncan, George Grange House, York Road, Edinburgh.
Paterson, Marcus, Colindale Hospital, Hendon, N.W.9.
Watkins, Col. F. W., Blair Atholl, Lenzie, N.B.
Brown, R. C., 11, Sandy Lane, Hindley.
Higginson R. B., Littlecourt, Tavistock, Devon.
Craig, S. R., "Springwood," Tomlinson Road, Higher Heysham, Lancs.
Boyd, Thomas, Mid Whitelee, Stewarton, Ayrshire.

ST. DUNSTAN'S WINTER EGG-LAYING TEST.

RESULTS FOR FOURTH PERIOD (24th Jan. to 20th Feb.).

Figures are Eggs and Points respectively:—

Section 1—Rhode Island Reds (Four birds competing).—Mr. L. A. Bisset, 260, 260; C. T. Condon, 233, 233; J. H. Tindall, 233, 220; A. E. Coman, 219, 219; J. H. Lea, 202, 202.

Section 2—Any Other Heavy Breed (Four birds competing).—F. E. C. Bulley, 203, 203; D. Maclean, 184, 184; R. Ashwell, 201, 181; T. A. Carter, 181, 148; P. Holmes, 190, 135.

Section 3—White Leghorns (Four birds competing).—Mr. C. Bulman, 220, 220; R. K. Lowrie, 208, 207; D. Roach, 195, 195; J. H. Tindall, 232, 194; H. A. Knopp, 183, 182.

Section 4—Heavy Breed (Single Bird).—A. Urry (W.W.), 77, 75; Mr. L. Bisset (R.I.R.), 70, 69; W. Burgin (R.I.R.), 57, 57; W. Webb (L.S.), 57, 57; A. Chaffin (W.W.), 54, 54; A. E. Coman (R.I.R.), 52, 52; H. A. Knopp (R.I.R.), 46, 45.

Section 5—Light Breed (Single Bird).—P. Holmes (W.L.), 56, 56; J. Nolan (W.L.), 47, 47.

The National Poultry Council.

The Quarterly Meeting of the National Poultry Council was held at the Midland Agricultural and Dairy College, Sutton Bonington, on Thursday, 15th April, 1926.

The President (Mr. Clem Watson) presided over a large attendance of delegates. A very hearty welcome was extended to the delegates by Mr. Ernest Wells on behalf of the Governors of the College, and, in thanking Mr. Wells, the President remarked on the cordiality of their welcome, on the beautiful situation of the college, and the splendid work which was being done. He paid a high tribute to the work of Dr. Milburn and the staff of the college.

Minutes.—The minutes of the last meeting were read and confirmed.

Finance.—The financial statement was made, in the absence of the Treasurer (Col. Sandbach), by the Secretary (Mr. Brown). He announced that the Poultry Club had, at a recent Council meeting, unanimously agreed to raise the affiliation fee to 3d. per member. Mr. Lawrence Ardern, President of the Poultry Club, said that he was very pleased that the club had come to this decision, for they were most anxious to see the National Poultry Council placed on a thoroughly business footing. Ever since its existence it had apparently been living on charity.

The President remarked that the Fancy had never "pulled" its weight, and therefore it was a great pleasure to him to know that this decision had been come to.

Mr. Street-Porter remarked that, while he appreciated the contribution of the Poultry Club, it would be far better if every association was to raise its subscription by the sum of 6d., and that this extra 6d. should be earmarked for the Council. They would then have no difficulty as to its finance.

Executive Committee Report.—The report of the Executive Committee was then presented by the Chairman (Mr. Tom Newman) and adopted.

Report of the Executive Committee to the National Poultry Council to be presented at the Midland Dairy and Agricultural College, Sutton Bonington, April 15th, 1926

The Committee beg to report that it has held two meetings since the last Council, January 21st, 1926.

Affiliations.—The following applications for affiliation have been received and approved:—Herts Federation of Women's Institutes; Jubilee Indian Game Club; Monmouthshire Agricultural Education Committee.

Patrons.—There have been elected as patrons of the National Poultry Council since the last Council:—Mr. Kenneth A. Crawford, Redwing Poultry Farm, Dilham, Norwich; Messrs. Rendel and Murphy, Owling, Wittersham, Kent; Dr. A. Everson Harrison, The Danetre Pedigree Poultry Farm, Daventry; Messrs. W. H. Cook, Ltd., Orpington, Kent; Mr. A. Harcourt-Peacock, Polleana, Duloe, Cornwall; Mr. W. H. Brady, Glan-y-Coed, Penmaenmawr, North Wales; Mr. A. R. Fish, Holme Mead, Hutton, near Preston; Mr. W. S. Woodward, Oak Poultry Farm, Burbage, near Hinckley.

Finance.—Since the last meeting the Finance Committee and the Executive Committee have given consideration to efforts for increasing the income of the National Poultry Council so as to enable it to meet the ever-growing demands upon it, especially in view of the want of response to appeals made by the President, by Mr. Laurence Ardern, President of the Poultry Club, and the Press. Constantly proposals are being made, many of which are of the greatest value and importance for the future of Poultry Husbandry in all its branches involving increase upon the administration, without any provision for meeting the expenditure which would necessarily be incurred. The time has arrived when there must be either a large increase of income or a drastic curtailment of the operations of the Council. In that every branch of the Poultry Industry must share in the responsibility.

The Finance Committee has made several proposals which are being considered in connection with the proposed registration of the National Poultry Council, and which will, it is expected, be submitted at the next National Poultry Parliament.

Meanwhile the Executive Committee has decided that in future those applying for the advice of the Council and its officials, and which has grown to an enormous extent, shall pay a small fee to cover postage, stationery, etc. This fee is reduced in half to those who are members of affiliated societies. Hitherto the great majority of those making such applications have not even enclosed a stamped envelope for reply.

National Poultry Institute Fund.—In view of the rapidly approaching completion of the main Institute buildings at Harper-Adams, Newport, Salop, since the last Council, a further sum of £1,062 10s. has been paid from this Fund to the Ministry of Agriculture and Fisheries. The balance will be called for very shortly. As indicated at the last Council, in addition to War Stock and Cash in Bank, a further sum of £640 must be raised to fulfil the undertaking of the Poultry Industry, which amount must be raised within the next few months. It is urged that the Council take steps to meet its obligations in this direction without any further delay.

Conference on Marketing.—This important gathering took place on January 27th, as arranged, and a report has been widely distributed. It was agreed to form a joint committee with the National Farmers' Union, upon which representatives of the trade would sit, to consider the adoption of methods of improving the marketing of native eggs and poultry. The representatives of the National Poultry Council have been appointed. That committee, however, has not yet met. It is hoped that there will be no further delay in taking action or the interest aroused by the Conference will largely be lost.

Poultry Farmers and Income Tax.—A special report will be presented to the Council, giving a summary of the long-drawn-out struggle with the Inland Revenue. The judgment given in the King's Bench Division of the High Court of Justice, on March 11th, is a vindication of the claim that poultry farming is husbandry, and that those engaged in this branch of production are entitled to be treated in the same manner as are ordinary farmers in assessments for Income Tax and Rating. The judgment referred to, following upon that in the Edinburgh High Court last October, has evidently been accepted by the Inland Revenue. What has now to be done is to watch carefully the Finance Acts in case an attempt should be made to introduce and pass through Parliament an alteration in the law.

The Executive Committee calls special attention of the National Poultry Council to the great service rendered in connection with this question by the Honorary Solicitors, Messrs. A. E. Hamlin & Co, to whose advice and assistance, as well as those of the Counsel engaged by them, the success in the accomplishment referred to is largely due.

Arbitration Board.—In view of the growing number of disputes between poultry-keepers, the Executive Committee desires to call attention to the fact that this Board is in operation, and is designed to prevent litigation. In some instances one of the parties refuses to refer the dispute to the Arbitration Board, in which case nothing can be done. It is satisfactory to place on record that in several instances the officials have been instrumental in mediating between disputants and thus preventing the taking of legal action without the Arbitration Board being called upon.

National Poultry Parliament, 1926.—In accordance with the decision of the Council to accept the invitation of the Vice-Chancellor of the University and the Mayor of Cambridge to hold the Parliament in that city this year, arrangements have been made for this to take place on July 21st and 22nd, particulars of which will be issued in due course, together with information as to hotel reservations. As an opportunity will thus be afforded of seeing something of the work of the Breeding and Nutrition sections of the National Poultry Institute now being carried out in connection with Cambridge University, as well as visiting the city itself, it is hoped there will be a large and representative gathering.

By order of the Executive Committee.

April 14th, 1926. (Signed) TOM NEWMAN, Chairman.

National Diploma Board.—Mr. P. Hedworth Foulkes, Chairman of the Board, said that he had very little to report. Arrangements for examinations to be held at the Midland College had been made, and the examiners appointed. This was the last year of the special offer to county instructors, and he hoped that they would take advantage of it.

Marketing Conference.—The Secretary, Mr. Edward Brown, stated that the report had been issued, but unfortunately, although the National Poultry Council had appointed its committee, the National Farmers' Union had not shown any willingness to meet it. It would be extremely unfortunate if the interest which had been aroused was allowed to lapse. At the Executive Committee the previous evening he had received instructions to communicate with the National Farmer's Union and ask them whether a meeting could not be arranged at the earliest possible date.

Southern Breeding Station.—Proposed by Mr. Foulkes, that Mr. M. F. Neame, who had been co-opted on the Committee, should not be elected as a representative of the National Poultry Council. This was agreed to.

Income Tax.—The Secretary, referring to the recent decision in the Nuttall case, said that Messrs. Hamlin, the Hon. Solicitors, had suggested to him that a record of the struggle of the Council with the Inland Revenue, which began in 1921, should be published. Mr. Brown then read the record to the members of the Council, and it is hoped that we shall be able to publish this in our next issue.

The President then moved:—"That the National Poultry Council places on record its appreciation of the great assistance rendered to it and those engaged in Poultry Husbandry by Messrs. A. E. Hamlin & Co. in advising the Council as to the steps to be taken in defending poultry farmers against the unjust claims of the Inland Revenue for Income Tax, and for the conduct of cases both before Commissioners and the High Court of Justice, resulting in the decision by Mr. Justice Rowlatt, on March 11th last, which judgment has now been accepted by the Inland Revenue."

The vote was carried unanimously.

STOCK POULTRY LAYING RECORD SCHEME.

Resolutions:—(a) Yorkshire Federation: The Yorkshire Federation of Poultry Societies unanimously condemn the Stock Poultry Laying Record Scheme of the Ministry of Agriculture because they consider it to be impracticable. In their opinion too many loopholes exist for unprincipled and unscrupulous action in its working.

(b) Keighley and District Branch of the S.P.B.A.: That the Keighley and District Branch of the S.P.B.A. strongly condemns the Draft Regulations of the Stock Poultry Laying Records Scheme of the Ministry of Agriculture and Fisheries, and desires that some scheme be adopted whereby the official records for Laying Tests recognised by the National Poultry Council be made the basis of performance.

(c) The Lancashire Federation moved: "The National Poultry Council thanks the Ministry of Agriculture and the Poultry Advisory Committee for their trouble in preparing the S.P.L.R. Scheme and regrets the scheme is not based on records made under complete official control, and, having regard to the expenses that would be entailed in effectively supervising Stock

Records of Performance, it cannot recommend the Ministry to proceed with the scheme."

Mr. Wainwright, representing the Yorkshire Federation, proposed that Resolution "A" and "C" should be combined, and this was agreed to.

An animated debate followed. Dr. Helm, in moving the Lancashire Resolution, said the basis of their opposition was that the scheme was not under complete official control. It was not worth the expense. Frequent visits by inspectors would be necessary to make it effective; not a mere perfunctory visit, they would need to spend half a day on the farm, and taking the average number of birds at 100 birds there would roughly be a loss of £240 on 40 farms. This would mean merely the cost of inspection; no costs for clerical work, etc. He estimated the loss on the scheme annually at from eight to ten thousand pounds. Now it would be possible to inspect laying trials and approve and register possibly 4,000 birds in the year, and yet the Ministry wanted to go further.

Mr. G. Palmer seconded the resolution. He said, in his view, it was the duty of the Government to govern and to keep law and order. They had scores of inspectors, and they wanted no more of them. The scheme he considered extremely costly, impracticable, and likely to be of little value to the poultry-keeper.

Mr. Street-Porter said that he was responsible for the drafting of the resolution in favour of the scheme two years ago, and he was just as much in favour of it now. They must do something to raise the standard of the stock in this country, and he proposed to make an amendment to the resolution from the Lancashire Federation, asking the Council to elect a deputation to the Ministry, requesting the Ministry to proceed with the scheme.

Mr. Foulkes regretted that Dr. Helm had put forward his scheme as an alternative scheme. The scheme submitted to the Council was not a final scheme. It was but a draft, and was open for discussion. He said breeders had found the value of the scheme, and they were exporting birds. The time may come when they may be exporting them even to this country. He seconded Mr. Street-Porter's amendment.

Mr. Oscar Brown hoped they would think terribly hard before they condemned the scheme. They should not only consider the breeder but the general improvement of the breeding stock throughout the country. He was sure they did not mean to flout the Ministry, who, at their request, had drafted this scheme.

Mr. Grant stated that the Egg Laying Trials only pointed out the merits of a few breeds. If the scheme had been a success in Canada, they could make it a success here.

Mr. Francis explained the position of the Ministry. He said they had been asked to draft this scheme, and it was there for their consideration. It had been said that the Ministry had forced the scheme on the industry. That was not the case. The Council had sent a resolution to the Ministry, and at its request the present scheme had been drafted. It was submitted to them for revision or amendment. They were not bound to accept it as it had been presented.

Mr. Tom Barron said he did not like the scheme. It was useless unless the records were guaranteed. He disagreed with Mr. Foulkes. We do not want two schemes. Could we not as Britishers produce a scheme other than the Canadian breeders? They did not like the scheme. He had heard from them to that effect, and they were initiating a new one.

Mr. Tom Newman said that, in view of the divergent views expressed, he thought they would be making a grave mistake to come to any decision that day. They were responsible to the industry, and the scheme should have far more careful consideration. To accept or condemn it would be most unwise. He moved that a sub-committee should be appointed to investigate this scheme in conjunction with that of the Laying Trials Committee. This was seconded by Mr. G. Palmer, but it was pointed out that Mr. Palmer had already seconded the resolution against the scheme. Mr. Palmer therefore witdrew, and Mr. Marcus Slade seconded the motion.

After consideration pressure, Mr. Street-Porter agreed to withdraw his amendment. Mr. Newman's resolution was then put to the meeting, and carried with one exception.

The Council then proceeded to elect the following committee:—Messrs. P. Hedworth Foulkes, W. Hamnett, Tom Barron, Lawrence Ardern, Street-Porter, Tom Newman, Frank Snowden, G. Palmer, Dr. Helm, and Dr. Crowther.

DEATH OF MR. J. W. HURST.

At the conclusion of the meeting the President announced that a telegram had been received announcing the unexpected death of Mr. J. W. Hurst, Editor of the "National Poultry Journal." He asked the delegates to stand as a mark of sympathy and respect.

LAYING TRIALS COMMITTEE.

Dr. Crowther, Chairman of the Committee, submitted the following report:—

A meeting of the Laying Trials Committee was held, by courtesy of the Leicestershire County Council, at 6, St. Martin's, Leicester, on 17th day of March, 1926.

Present:—Dr. Crowther (Chairman), Capt. Peirson-Webber, Mr. Oscar Brown, Dr. Helm, Mr. J. N. Leigh, and in addition at the afternoon session Mr. Frank Snowden; and A. H. Brownson as Secretary.

The Chairman in his opening remarks stated that the most important factor in the scheme was the question of finance and clerical assistance, and he suggested that the Committee should at once go into the financial aspect of the matter with a view to submitting an estimate with a recommendation to the next meeting of the National Poultry Council.

A prolonged discussion on various points ensued, after which the following estimates were prepared:—

Pay for a clerk three months prior to and three months after the termination of the recognised Laying Trials at £3 per week ...	£75	0	0
Office expenses, including ordinary postages and stationery ...	25	0	0
Printing 2,000 copies of Register ...	60	0	0
Postage on same ...	10	0	0
2,000 rings, including sealing pliers and cost of distribution ...	7	0	0
Advertising ...	10	0	0
Sundry expenses ...	13	0	0
	£200	0	0

With regard to the provision of funds for financing this scheme the Committee explored at length various methods, several members expressing a very definite opinion that an assured income was absolutely necessary to ensure the success of the Register, and after considering at length various suggestions the Committee unanimously decided to: "Advise the National Poultry Council to enquire from each recognised Laying Trials whether they would be prepared to pay a contribution based on the payment of 6d. per bird entered in their test; such contribution to be additional to the existing annual fees payable by Laying Tests under the recognised scheme."

The Committee estimated that if this suggestion is accepted by the recognised Laying Trials that the entrance fees on this basis would produce a revenue of £175 per annum, leaving a balance of £25 to be secured by the sale of the Register. The Committee further recomended that the Register be sold at the lowest possible price to secure widest possible circulation, and they would also draw the attention of the National Poultry Council to the possibility of securing further revenue from advertisement in the Register.

The Committee also suggest that some portion of the existing annual fees paid at the rate of 10/- per 100 birds at recognised Laying Trials might be utilised for the purpose of this Register.

The Committee then went into the question of detail, and they are of opinion:—

1. That the Register shall be arranged in breed sections.
2. In each section all birds belonging to individual owners shall be entered together.
3. That the number of eggs of each bird shall be shown in the Register for three periods of the test in which it is competing, i.e., 1 to 16 weeks, 17 to 32 weeks, 33 to 48 weeks, all inclusive.
4. That number of eggs shall be shown as first grade and second grade in all cases where such grading is carried out at the test.
5. That, where possible, the total weight of eggs laid in each period shall also be shown.

Time did not permit the discussion of further details, but it was felt that these might well be left until the Council had come to a final decision as to the establishment of the scheme.

POULTRY BUREAU.

This was a resolution by the Poultry Club referred from the previous meeting, that a Bureau be formed, at which particulars of Continental, Colonial and Foreign Shows generally may be obtained by would-be exhibitors. That arrangements be made for exhibits to be conveyed and supervised at such shows by a representative approved by the Poultry Club.

The Secretary announced that no information had been received regarding this resolution, but Mr. Lawrence Ardern said that he had spoken to Mr. Carlton Hunting, the proposer, but had received very little information from him, and as he was not there in person to propose the resolution they could only allow it to drop.

The following resolution was moved by Mr. W. Hamnett:—"That to facilitate the work of the National Poultry Council, both from a delegate's and administrative standpoint, arrangements be made for holding all Council meetings at one centre each year, such centre to be decided at the first Council to be held immediately after the National Poultry Parliament.

"Further, that an arrangement as to pooling of railway fares of delegates on a third-class or excursion basis, should the latter be available, whichever is the lower, be put into operation for all Council meetings."

After some discussion it was agreed that the system of pooling of fares should be given a trial, Mr. Newman remarking that the great thing in its favour was that it had been urged by Mr. Hamnett that it secured better representation from the poorer societies. The Council, however, were almost unanimously of opinion that the proposal to hold all meetings at one centre would need further consideration.

Mr. J. G. Kitson proposed the following vote of thanks to Principal Milburn and his staff.

This was seconded by Mr. A. H. Brain, and carried amidst applause:—

"That the National Poultry Council hereby express their thanks to Principal Milburn and his staff, together with the Governors of the Midland Agricultural and Dairy College for the invitation to hold the present meetings at the College, and for the kind hospitality extended to them, thus affording an opportunity of seeing the work now being carried out at this important institution."

FOOD PURCHASE SCHEME.

From a number of letters recently received, it appears that it is not a well-known fact that grains of every description can be purchased under this scheme.

May we therefore state, that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns.

We cannot give prices here, as space will not permit, but price lists will be despatched immediately to any member, if application is made to this office.

Referring to the odd cwts. which are now to be supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown.

This is to cover the extra expenses and handling which the one cwt. business involves.

If the total order amounts to 5 cwt. and over, this extra charge will not be made.

PRICES OF MASHES, ETC., PER CWT.

The following meals can be supplied in 5 cwt. lots and upwards of one kind, free on rail :—

	Layers.	Growers.	Breeders.	Chick.
F.O.R. LIVERPOOL	11/0	11/0	11/3	11/9
F.O.R. LIVERPOOL	11/0	11/6	12/9	12/9
F.O.R. LONDON	11/6	11/6	12/6	12/9
F.O.R. LONDON	11/3	11/3	12/3	12/6
F.O.R. LEITH	11/3	10/9	11/9	11/9
F.O.R. LEICESTER	11/3	11/3	12/0	12/6
F.O.R. KING'S LYNN ...	11/0	11/0	11/6	12/3
F.O.R. BELFAST	12/9	12/3	13/0	14/0
F.O.R. BRISTOL	11/0	11/0	11/9	12/6
F.O.R. SOUTHAMPTON ..	11/6	11/6	12/6	12/6
F.O.R. PLYMOUTH ...	12/0	14/0	12/6	14/3
F.O.R. ABERDEEN	12/0	13/6	13/6	13/0
F.O.R. HARROGATE ...	11/6	11/6	12/3	12/9
F.O.R. GLASGOW	12/0	12/0	12/0	13/0
F.O.R. STAFFS	10/9	10/9	12/3	12/0
FO.R. SUSSEX (East) ...	11/6	11/9	12/6	12/0
F.O.R. HERTS	11/3	10/9	11/6	11/3
F.O.R. SUSSEX	11/6	11/6	12/6	12/6
F.O.R. BRADFORD	11/6	11/6	12/3	12/9
F.O.R. BIRMINGHAM ...	11/6	11/6	12/3	12/6
F.O.R. GREENOCK	11/6	12/0	12/9	13/3
F.O.R. TEWKESBURY ...	11/9	11/9	13/0	13/3
F.O.R. BOLTON	11/9	11/9	12/9	12/9
F.O.R. MIDDLESBROUGH	11/3	11/3	11/3	12/3
F.O.R. PARTRIDGE GREEN, SUSSEX	11/3	11/6	11/0	12/3
F.O.R. HULL	12/3	11/6	12/3	12/9
F.O.R. ESSEX	11/0	11/0	11/9	14/3
F.O.R. BIRKENHEAD ..	11/0	11/0	11/3	11/9

FATTENING MASH.

F.O.R. LIVERPOOL	11/6	F.O.R. SUSSEX (E.)	12/3
F.O.R. LIVERPOOL	12/6	F.O.R. HERTS ...	11/9
F.O.R. LONDON ...	12/6	F.O.R. SUSSEX ...	12/6
F.O.R. LONDON ...	12/0	F.O.R. BRADFORD	——
F.O.R. LEITH	11/0	F.O.R. BIRMINGHAM	——
F.O.R. LEICESTER	12/3	F.O.R. GREENOCK	12/9
F.O.R. KING'S LYNN	11/6	F.O.R. TEWKESBURY	11/6
F.O.R. BELFAST ...	12/6	F.O.R. BOLTON ...	12/0
F.O.R. BRISTOL ...	11/9	F.O.R. MIDDLESBRO.	12/0
F.O.R. SOUTHAMPTON	11/9	F.O.R. PARTRIDGE GREEN, SUSSEX	11/6
F.O.B. PLYMOUTH	11/9	F.O.R. HULL ...	——
F.O.R. ABERDEEN	13/0	F.O.R. ESSEX ...	——
F.O.R. HARROGATE	12/9	F.O.R. BIRKENHEAD	11/0
F.O.R. GLASGOW	12/0		
F.O.R. STAFFS ...	11/3		

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	16/9	14/9
F.O.R. LIVERPOOL	17/0	14/9
F.O.R. LONDON	17/0	15/0
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEICESTER	16/6	14/6
F.O.R. KING'S LYNN	17/0	14/9
F.O.R. BELFAST	18/0	16/9
F.O.R. BRISTOL	17/3	14/9
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	16/9
F.O.R. ABERDEEN	14/6	13/6
F.O.R. HARROGATE	17/6	15/3
F.O.R. GLASGOW	17/0	15/0
F.O.R. STAFFS	17/0	14/9
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	16/6	14/3
F.O.R. SUSSEX	18/0	14/9
F.O.R. BRADFORD	17/6	15/9
F.O.R. BIRMINGHAM	18/0	16/0
F.O.R. GREENOCK	18/3	15/0
F.O.R. TEWKESBURY	18/3	16/3
F.O.R. BOLTON	17/0	15/3
F.O.R. MIDDLESBROUGH	17/6	16/3
F.O.R. PARTRIDGE GREEN, SUSSEX	17/3	15/3
F.O.R. HULL.	15/9	14/6
F.O.R. ESSEX	17/9	15/9
F.O.R. BIRKENHEAD	16/9	14/9

	Per Cwt.	
Fish Meal (Pure White) ...	17/6	F.O.R. LONDON.
" " " ...	17/6	F.O.R. BRISTOL.
" " " ...	17/9	F.O.R. SWANSEA.
" " " ...	17/9	F.O.R. TYNEMOUTH
" " " ...	17/9	F.O.R. GRIMSBY.
" " " ...	17/6	F.O.R. BRADFORD.
Special Fish Meal	16/9	F.O.R. MIDDLESBRO'.
Meat Meal	15/0	F.O.R. LONDON.
Meat and Bone Meal	13/6	F.O.R. LONDON.

		Per Cwt.
MAIZE GRITS	F.O.R. LONDON	11/0
MAIZE GRITS	F.O.R. IPSWICH	11/0
S. G. OATS	F.O.R. LONDON ...	13/0
S. G. OATS	F.O.R. SUSSEX	12/6
S. G. OATS	F.O.R. BRISTOL	12/9
MAIZE GERM MEAL	F.O.R. LONDON	8/9
MAIZE GERM MEAL	F.O.R. IPSWICH	8/9
MEAT AND BONE MEAL...	Carriage Paid	15/3
MEAT MEAL	Carriage Paid	15/9
ALFALFA	F.O.R. LONDON	11/6
"	F.O.R. BRISTOL	11/6
BONE FLOUR	F.O.R. LONDON	9/6

It would be of very great assistance if members when ordering would always state station they wish goods despatched to, also their nearest depot.

SEE SPECIAL OFFERS ON NEXT PAGE.

7, Davies Row, Treboath, near Swansea.
25th March, 1926.

Dear Mr. Newman,

Thanks very much for the last consignment of mash. I was perfectly satisfied with the promptness in despatching it, and the quality. I may say that my poultry were laying well previously, but they are still going well, and keeping up weight. Several of my pullets have laid well over the hundred, having started at the latter end of October. This I can say about the mash that it is about 2s. per cwt. cheaper than I could buy it wholesale and mix it myself. Please send me another consignment as follows.

Yours faithfully,

(signed) JOHN DAVIES.

Correspondence—Continued

B. W. D.

Dear Sir,—I am sending you the following facts in my experience of B.W.D., as there are points in it I have not seen mentioned, and which I think may be useful to other readers of "Eggs."

Please note, first of all, that I only breed Light Sussex, and that when I mention any other breed it is from bought eggs.

In the season of 1921-2, being short of eggs in December, I bought 100 and 50 Light Sussex eggs. I got five chicks from the 100 and 18 from the 50. It was these, I believe, that first brought me B.W.D. It ran right through the season, and I think every hatch got it more or less. Wyandottes got it worst, then R.I. Reds, and my own Light Sussex did not get it very much.

For a few years I kept no hens on to the second season, so that the next season the whole of my stock were pullets and cockerels that had been right through and survived B.W.D., yet I had no return of the complaint whatever (neither did they give it to bought chicks) till the middle of last season, when it was presented to me again in some Rhodes.

The gentleman who sold me the Rhode eggs wrote to me just as they had hatched, saying: — How are your Rhode chicks, because my last hatch are dying off?" I replied that mine were all right, but the next day they had begun to die, and I sent some to Major Saunders, who confirmed my suspicions that it was B.W.D. I sent his reply to the owner of the eggs, who was very much concerned, and very fairly, as I thought, refunded the money. I killed the whole batch straight away, and the whole of the next batch, which also caught it, and burnt the litter and chicks, and cresoted the houses inside, but it did not stop it.

SPECIAL OFFERS.

FISH MEAL, with the following analysis:—
OIL ... ... 4.5 per cent.
ALBUMINOIDS ... ... 55.60 per cent.
PHOSPHATES ... ... 16.18 per cent.
Prices F.O.R. LONDON
Under 5 cwts. ... ... 18/9 per cwt.
5 cwts. orders and upwards ... 17/9 per cwt.

FISH MEAL:—
OIL ... ... under 4 per cent.
SALT ... ... under 3 per cent.
ALBUMINOIDS ... 55/60 per cent.
PHOSPHATES ... 15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—
ALBUMINOIDS ... 35/40 per cent.
FATS ... ... 10/15 per cent.
PHOSPHATES ... 25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—
ALBUMINOIDS ... 57/62 per cent.
FATS ... ... 10/15 per cent. at 15/6 per cwt.
F.O.R. MIDDLESBROUGH.

DRIED SEPARATED MILK, with the following analysis:—
FAT ... ... 1.80 per cent.
PROTEINS ... ... 32.95 per cent.
MILK SUGAR ... ... 51.85 per cent.
MINERAL MATTER ... 7.00 per cent.
MOISTURE ... ... 6.40 per cent.

CARRIAGE PAID at Prices:—
One ton and upwards ... ... at 41/0 per cwt.
10 cwts. and upwards ... ... at 42/0 per cwt.
1 cwt. and upwards ... ... at 43/0 per cwt.

PURE UNEXTRACTED DRIED YEAST:—
F.O.R. LIVERPOOL ... ... at 21/0 per cwt.

The next batch were day-old Wyandotte chicks. These escaped, but the following two batches (Light Sussex from a local man) had it badly, and only a few survived. Then followed two batches of Light Sussex from a well-known breeder. They did not get it much, though they were running about among those that had. It ran through the last few hatches more or less, though I reared them on a different part of the farm.

This season I mated up three pens of Light Sussex. Pen 1 contained hens (which had not been through it) mated to cockerels which had. Pen 2 contained pullets from a well-known breeder, and a few surviving pullets from the local man, mated to his cockerels. Pen 3 contained the same breeder's pullets and the local man's mated to the remainder of hens and his cockerels and my own.

None of these were blood-tested, and, according to up-to-date theories, should have been full of it. A man to whom I sold five pullets had them blood-tested, and one re-acted.

I started incubating on November 21st this season, and the first three batches contained eggs from the three pens. The first five batches were free, but the sixth got it badly, and when more than half had died I killed the rest. The twelfth batch also had it, but not the thirteenth. The fourteenth batch were White Orpingtons and eggs from pens 1 and 2. This lot escaped.

Now we get to the interesting point. The fifteenth batch was from bought eggs of Red and Light Sussex, and from Pen 1. These had it badly, and there is hardly one left. The Pen 1 chicks started with it first, and spread it to the others.

The 16th hatch was from bought Light Sussex eggs and from Pen 1, and these had it badly, too. The 17th were from Wyandottes and **Pen 2,** and did **not** get it. The 18th from Wyandottes and Pen 1 and Pen 2, and caught it. The 19th from Wyandottes and **Pen 2,** and escaped it. The 20th from Pens 1 and 2, and caught it.

The 21st were Rhodes and Wyandottes. I killed a few very suspicious cases, but it did not spread. The next two batches were within two days of each other, and contained eggs from Wyandottes and Pens 1 and 2, but just before they hatched I put all the Pen 1 eggs out of both lots in another incubator. About half a dozen chicks in the Pen 2 batch went wrong and I killed them, but it did not look like B.W.D., but the Pen 1 batch got it badly.

The last hatch were Rhodes. I have killed three that looked very like it, but they are a strong, healthy lot and doing well, and are now a fortnight old.

The conclusion would seem to be that chicks, both of whose parents have been through an epidemic of B.W.D., will not develop it or give it to others, but are able to catch it from infected chicks, but, if this is the case, where did the hens get it from? Did they get it from the cockerels or did they pick it up from the chickens the previous season?

I believe if I had only bred from pullets this year I should have escaped it altogether.

Yours truly,

"HADSUM."

MR. NICHOLAS' ARTICLE.

Dear Sir,—I have read and re-read Mr. Nicholas' article. It is difficult to follow. I certainly cannot accept his conclusions, especially as regards the figures mentioned. The best reply it seems to me I can make is to give a short resume of what happened, and the figures of the death-rate which have been proved by the yearly balance, to be approximately correct, but under, rather than over-stated. I was introduced to Mr. Nicholas by a small poultry farmer whose stock had been treated by Mr. Nicholas. I entered into a written, stamped, and witnessed agreement to pay Mr. Nicholas £150 at the end of 28 days, if he cured my farm of the epidemic, as he claimed he could do. The agreement was on the principle of "no cure no pay," and was signed by both parties, and in the words of the agreement "if the farm is then practically free from the disease as far as the hens are concerned," the money to be paid. Mr. Nicholas would not accept any responsibility for the chickens. Mr. Brain did treat the chickens as well.

Mr. Nicholas commenced operations on May 2nd. The farm was placed under his control, as he required it, the staff was increased by one man and three lads, and no difficulties were placed in his way.

At the end of 28 days I found the whole place had been reduced to a chaos, the ordinary work of cleaning and disinfecting had not been done; 19 hospitals had been set up all over the place, and no attempt had been made to keep sick and healthy stock separate, beyond dividing off sections of houses with wire netting, putting the deceased birds on one side and keeping the remainder of the birds on the other. The divided off portion with the sick birds was called a hospital.

There was something valuable in the medicine, especially the one used as a dip. I took over the organisation of the farm, fenced off a portion, and the houses in this portion were used as improvised hospitals and convalescent houses. I realised that no one could do much good working in the chaos to which Mr. Nicholas had reduced everything. The birds in the cages in the regular hospitals had been released to run free about the building, roosting where they chose; the filth and stench arising from the unlittered floors can be more easily imagined than described. As I thought, and one of my leading men thought, that the treatment medicinally was better than we had tried before, I renewed the agreement for a further term of 28 days, in two instalments of 14, hoping, with something like order restored, there might be better results from the treatment. The sick birds were segregated on one part of the farm; those that remained healthy being kept on the other. Cases of sickness were occurring daily amongst the healthy stock, and were removed as discovered, to the hospital section. At the end of another 28 days we seemed no better—nine large houses, 50 feet long, by 14 feet wide, were occupied with diseased birds; there must, at a moderate computation, have been still some 1,200 birds ill and fresh cases were coming in as fast as the convalescents, or dead birds, made room for them. The death rate during May was at its highest, and the June rate, taking into consideration the smaller number of the stock, and the one day short, was within the merest fraction the same, so I saw no object in continuing Mr. Nicholas' treatment, and asked him to cease. There was no legal claim on me at all, but as an act of grace, and without prejudice to the agreement, as I made quite plain to him, I gave him £50. As Mr. Nicholas has thought fit to make reflections on my staff I can best refute this injustice by saying the same men and lads, wearied as they were by months of extra work, spent in fighting the disease, disheartened too, by Mr. Nicholas' failure to carry out the promises he made so profusely to them. immediately he left responded to Mr. Brain's efforts, so that when ably led, they reduced the nine hospitals to one in a fortnight, and the death rate fell as the figures show. I attach little importance to mere statements of figures, figures that cannot be checked. The figures in the table given have been checked by the yearly balance that always takes place and they are very nearly correct. The margin of error was 233 deficit, which shows certain hens and chickens died that were not booked, but in the difficulties we were working under, this perhaps may be excused.

Death-rate for year 1925.

January	111 hens	49 chickens
February	121 ,,	131 ,,
March	320 ,,	172 ,,
April.	421 ,,	341 ,,
(Roup appeared amongst chicks).		
May	832 ,,	544 ,,
June	702 ,,	747 ,,
(Mr. Nicholas in charge).		
July	296 ,,	441 ,,
August	114 ,,	179 ,,
(Mr. Brain in charge).		
September	123 ,,	80 ,,
October	92 ,,	47 ,,
November	48 ,,	2 ,,
December	44 ,,	32 ,,
(New lot of chicks).		

There were 8,086 head of adult stock on the farm on January 1st, 1925, of which only nine were in

(Continued at Foot of Column Next Page).

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, APRIL 16th, 1926.

GRAIN AND FEEDING STUFFS.—Comparatively small supplies of British wheat generally meet a good trade and prices have advanced at all markets, the average quotation being about 12s. 5d. per cwt. as compared with 12s. last week. Imported wheat is in fair request, and recent rates are firmly held. Trade for barley shows some improvement, and quotations for both home-grown and imported feeding descriptions are slightly higher on the week at the majority of centres. Oats generally are in fair request and most descriptions are dearer at London and Bristol, while elsewhere recent prices are mostly maintained, supplies of foreign at some markets being on the short side. Maize is in better request and again dearer, Argentine averaging 7s. 10d. per cwt., an increase of 2d. per cwt. on the week.

Bran and coarse middlings generally experience a fair demand and realise higher prices at Bristol and London, while recent quotations for other millers' offals are maintained. Meals meet with rather more inquiry, and both barley and maize meals are dearer on the week. Cotton seed cake fully maintains recent prices at most markets, but linseed cake is reduced 5s. per ton at Liverpool and Bristol.

MILLERS' OFFALS.—Bran (British): Bristol, £6 17s; Hull, £6 7s; Liverpool, £6 15s; London, £6 7s. Broad Bran: Hull, £7 17s; London, £7 15s. Middlings—Fine (Imported): London, £7 12s; Coarse (British): Bristol, £7 15s; Hull, £7; Liverpool, £6 15s; London, £6 10s. Pollards (imported). Bristol, £6; Hull, £5 10s, Liverpool, £5 7s; London, £5 17s. Rice Bran: Bristol, £6 15s; Liverpool, £6 10s; London, £6. MEAL.—Barley Meal: Bristol, £9 10s; Hull, £9 5s; London, £9 10s. Maize Meal: Bristol, £9 10s; Hull, £8 13s; Liverpool, £8 17s; London, £8 15s. Maize Meal (S. African): Bristol, £8 5s; Hull, £8; Liverpool, £7 17s; London, £8. Maize Germ Meal: Hull, £8 5s; London, £8. Maize Gluten Feed: Bristol, £10 5s; London, £9 5s. Maize Cooked Flaked: Hull, £10 10s; Liverpool, £10 5s; London, £10 15s. Locust Bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool £9, London, £9 5s. Bean Meal: Bristol, £13; Hull, £11 7s; London, £12 5s. Fish Meal: Bristol, £20 10s; Hull, £19; Liverpool, £18 10s; London, £18.

EGGS AND DEAD POULTRY.

Eggs experience a moderate inquiry, and last week's quotations are generally held. Offerings of dead chickens and ducklings are sometimes short of requirements, and there is a fairly good inquiry for best qualities.

Week-end Prices—Eggs (per 120): British, 12s 9d, 11s 3d; Irish (Extra Selected), 12s 6d; Irish (Selected), 12s 3d; Danish (18 lb.), 14s 3d, 14s 0d; Danish (15½ lb.), 11s 9d, 11s 6d; Dutch, brown, 13s 3d, 13s 0d; Dutch, mixed, 12s 3d, 11s 9d; French (Normandy brown), 13s 6d, 12s 9d; French (Normandy mixed), 12s 0d, 11s 0d; French (Brittany), 10s 0d, 9s 6d; Belgian, 11s 9d, 11s 3d; Egyptian, 8s 0d, 7s 6d; Polish, 9s 3d, 8s 9d.

Dead Poultry (per lb.): Fowls—Surrey, 2s 2d, 1s 8d; Irish, 1s 7d, 1s 4d; Others, 1s 9d, 1s 5d. Ducks, 2s 6d, 2s 2d.

EGGS.

Per Doz.—Ashford. First, 1s 4½d; Second, 1s 3d. Birmingham: First, 1s 3d; Second 1s 2½d. Bridgwater: First, 1s 4d; Second, 1s 2½d. Chelmsford: First, 1s 4¾d; Second, 1s 2½d. Colchester: First, 1s 3½d; Second, 1s 1¼d. Doncaster: First, 1s 5d; Second, 1s 4d. Dorchester: First, 1s 3d; Second, 1s 2d. Exeter: First, 1s 1d; Second, 1s 0d. Hereford: First, 1s 1d; Second, 1s 0d. King's Lynn: First, 1s 3d; Second, 1s 1d. Llandilo: First, 1s 1d. Mold: First, 1s 2d; Second, 1s 1d. Newport (Mon.): First, 1s 2d; Second, 1s 1d. Norwich: First, 1s 3¼d. Oswestry: First, 1s 1d. Penzance: First, 1s 0d; Second, 11d. Saffron Walden: First, 1s 4¼d; Second, 1s 1½d. St. Ives (Hunts): First, 1s 2½d; Second, 1s 1½d. Salisbury: First, 1s 2d; Second, 1s 1d. Skipton: First, 1s 6d. Swindon: First, 1s 2d; Second, 1s 1d. Truro: First, 1s 0d. Welshpool: First, 1s 2d; Second, 1s 0d. *Carlisle: First, 1s 4d; Second, 1s 2d. *Derby: First, 1s 5d. *Ipswich: First, 1s 4d; Second, 1s 0d. *Lincoln: First, 1s 3d. *Shrewsbury: First, 1s 2d; Second, 1s 0d. *York. First, 1s 5d.

FOWLS.

Per lb.—Birmingham: First, 1s 7d; Second, 10d. Doncaster: First, †6s 0d; Second, †5s 0d. Exeter: First, 1s 8d; Second, 1s 4d. Hereford: First, 1s 8d; Second, 1s 6d. Llandilo: First, 2s 0d; Second, 1s 6d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First, 1s 5d. Welshpool: First 1s 7d; Second, 1s 6d. *Derby: First, †6s 3d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

DUCKS.

Per lb.—Exeter: First, 1s 8d; Second, 1s 4d. *Ipswich: First, 1s 4d.

*At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, April 21st, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

MEMBERSHIP OF THE S.P.B.A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, or farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely, Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex.

The financial year began on 1st September.

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hospital. The death rate I should have expected for a normal year, judging from the experience of many years past, would have been about 70 per month of the adult stock, not chickens, of course.

We hatched 8,000 chickens in 1925.

Yours faithfully,

T. W. TOOVEY.

EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH).

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ANOTHER TESTIMONIAL.

Cornwall, 30/3/1926.

Dear Sirs,—
Re the sitting of Leghorn eggs. I am pleased to say that every egg was fertile. Nine chicks hatched, hen ate one egg and squashed one egg. I am very pleased with the strong chicks.—S.

SANDOWN, - - I.O.W.

An Opportunity Now Offers

To those who are determined to secure some really good breeding stock, as the breeding pens at "Heydown" are now being disbanded.

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To meet the constantly increasing demand even more promptly than heretofore and to further improve our SERVICE, additional works have been opened in London where we standardise in our "All 1 inch" specification, *i.e.*, Floor, Walls and Roofs, or with "CAEMENTEX" roofs which are equivalent to 4 inch thickness of solid timber—no joints or cracks, non-conductive, water-proof, everlasting.

A solution to the difficulty touched upon by Mr. Tom Newman in his Editorial of March 17th is to be found in our patented "Range Tracks" which permit moving of houses up to 125 birds capacity—every foot of ground ranged without fouling of soil surrounding houses.

Call and see Specimen Houses at BUSH HOUSE, ALDWYCH, W.C., or write:— W. H. COLT, Ltd., BETHERSDEN, near ASHFORD, KENT.

EGGS

THE OFFICIAL ORGAN OF THE

Scientific Poultry Breeders' Association

WEDNESDAY, APRIL 28th, 1926.

Editorial.

A STARTLING PROPOSAL.

We are certain that the letter which we publish below will be read with profound interest by our readers, and may we refer them to our advertisement columns for further information.

The proposal is so unique, and the scope of the proposed farm so large, that it will be agreed that from many points of view such an experiment is bound to be of great value to the industry.

The statement is made :—

> "We are only concerned in the discovery of a breed that produces the most eggs at the least cost, after allowing for varying carcase values."

On numerous occasions we have had discussions on this subject in these columns, and no one has yet been able to give us figures on which we would place such reliance as would enable us to say definitely : "Here is the best and most economical breed for our purpose."

We particularly draw readers' attention to the fact that the advertisers are not only willing to pay reasonable prices for good pullets, but they also offer an incentive to supply same in a generous bonus, and the competitive element should at least enable them to secure stock of high merit.

We are explicitly asked whether we consider the proposals reasonable and of interest to the poultry industry as a whole. That they are of interest to the poultry industry no one will dispute. In fact, there has been no proposal of recent years which is likely to have aroused so much interest, neither can they be regarded as unreasonable. It must be agreed that success or failure in an enterprise of this kind would depend upon so many things which it is not our place here to discuss, but we may definitely state that we consider there is a reasonable prospect of success, and the offer to breeders is one which is undoubtedly generous.

The question will arise : What is likely to be the general effect of such a proposal as this on the British Poultry Industry as a whole? That, time alone can prove. To discuss it here is not possible at present.

We may add that we have had more than one interview with the advertiser. He is perfectly correct in describing himself as "Amateur." His proposals therefore are the more daring, but they need not be regarded as impractical on that account.

Dear Sir,—During the last three to four months I have been investigating the possibility of establishing a commercial egg farm on a large scale, but there appears such a wide divergence of views as to the best method to adopt that I find myself quite unable to come to any definite conclusion. Perhaps I should tell you shortly what my aim is :—

To establish under as nearly as possible ideal conditions of soil, housing, availability of markets, etc., a commercial egg farm, reaching as soon as possible a maximum of, say, 40,000 laying hens, in the endeavour to determine finally whether or not it is possible—without limitation on the necessary capital—to produce eggs in this country at a sufficiently low cost to earn a reasonable return on the capital invested, so that, should it prove to be practicable, to then secure the establishment of similar plants in various parts of the country wherever market and other conditions render the commercial prospects reasonable.

In order that the issue to be tried shall be a clear one, no sales of breeding stock, fertile eggs, etc., would be made, that side of the question being, in my opinion, the business of the professional breeder, with whom I have no desire to compete but rather to invite his assistance in order to carry out my plan.

My inability to come to any decision—referred to in my opening paragraph—arises from many causes. I will name the principal ones :—

(1) Lack of really sound data as to costs of production when established on a large scale;

(2) Wholly divergent views as to method of operation;

(3) Selection of breed;

and I have come to the conclusion that the only way to finally settle these questions to my own satisfaction is to carry out a somewhat large experiment, the outline of which I attach.

Perhaps you would be so kind as to let me know if you consider my proposals reasonable and of interest to the poultry industry as a whole. In the event of your views being favourable I should be pleased if you would insert my proposal in your next issue as a trade advertisement.

I enclose my card, but should be glad if you would allow me to hide my identity under the perfectly true description of—

AN AMATEUR.

STOCK POULTRY LAYING RECORD SCHEME.

The discussion of the above scheme by the delegates to the National Poultry Council had been anticipated with interest, and, if we may be permitted to say so, was creditable to all those who took part in it. It was no secret that widely divergent opinions were held, and strongly held;

there were those who condemned it unmercifully, and others who were perhaps a little inclined to speak too enthusiastically of it, but the views expressed at the Council meeting were temperate, and the prejudice which had been such a striking feature in the discussions in the Poultry Press was not apparent at the Midland College.

The discussion was most ably opened by Dr. Helm, who, on behalf of the Lancashire Federation, proposed a resolution regretting that the Council could not recommend the Ministry to adopt the scheme on the grounds that it was too costly and impracticable.

Dr. Helm's main point was that the inspection could not be complete enough to guarantee the records, and therefore they would be worthless; that it was putting an ugly weapon in the hands of dishonest breeders; that it would be too costly. He was a little satirical as to the suggestions made that it would improve our export trade. He quoted figures in regard to the cost, which we are sure he would not claim to be accurate, but merely an estimate. Nevertheless, his was a well-reasoned little speech, and it was not without its effect upon those who were doubtful as to what course to follow.

Mr. George Palmer strongly supported Dr. Helm, and he had the meeting with him when he affirmed that the duty of a Government was to govern, and to keep law and order. He was opposed to the scheme as impracticable, and was particularly opposed to an army of inspectors.

As has been previously reported, the scheme was strongly supported by Mr. Street-Porter, Mr. P. Hedworth Foulkes, and Mr. Oscar Brown.

If we may be allowed to express an opinion, it is that the mistake has been made of regarding the scheme, purely in the light as to its possible effect upon the pedigree breeder. In all the correspondence and discussions which have taken place, the opposition has been based on the impossibility of guaranteeing records, all other issues have been side issues. They may have weighted the arguments against the scheme, but they were not of serious importance, and we hardly think that those who urged them regarded them as being so.

We are somewhat diffident in expressing an opinion, for, as a member of the Poultry Advisory Committee, we assisted in drafting the scheme, and so are in a small measure responsible for it.

The fact that the recommendation to the Ministry by the National Poultry Council two years ago was based on the Canadian Record of Performance Scheme is probably accountable for the title. But does the title convey its real object, and in the draft which has been published is the real idea conveyed to the public? We think not. The impression on the minds of most people will be, that all that is intended is to obtain records which may be published under the official seal of the Ministry, and that is hardly what was in the minds of those who were responsible for the scheme. It was not intended for the sole benefit of the pedigree breeder, nor to be a mere compilation of records, but to effect BREED IMPROVEMENT. Unfortunately the view is too generally held that breed improvement depends entirely on a trapnest record. So much has been made of the necessity of frequent visits to the farm by inspectors, and the necessity of their spending long hours there to verify the records. Breed improvement does not necessarily lie through the trapnest. Intelligently used it is a great asset, but in the hands of the unintelligent breeder it is altogether another matter, and we conceive that had more stress been laid upon the fact that the immediate object of the scheme was breed improvement and not merely the compiling of records, there would have been less opposition.

The criticism of the opposition, we venture to say, was not constructive. They seized upon what is undoubtedly the weak point of the scheme—inspection—but they made no suggestion, and generally seemed to be rather too well satisfied of the pre-eminence of British stock, a pre-eminence which they will one day realise is being seriously challenged. They made far too much of the possibilities of fraud under the scheme, forgetful that no possible scheme will ever be evolved which does not offer opportunities of fraud to any dishonest breeder. But, indeed, the difficulties of inspection, more especially as to the trapnest records, is the weak point in the scheme.

Further, it will be admitted that the inspectors must be men fully qualified to undertake the work, and therein lies a difficulty which will not be easily overcome. For the breeder to have confidence in the scheme, it is essential that he should be assured that the inspectors possess the qualifications necessary. Our suggestion is, that inspection shall be on the lines: (1) That stock is typical of the breed, healthy and vigorous; (2) that it is properly housed; (3) that there is no active disease on the farm; (4) that the requisite number of trapnests are in action for recording the breeding stock; (5) and that, as far as the inspector's observation of the stock goes, there shall be nothing which is inconsistent with the records submitted to him to make it suspect. If improvement in size of egg is one of the objects of the scheme, as it should be, then breeders should be compelled to sign an agreement to the effect that they would not sell for incubation eggs under a specified weight. We feel that inspection on these lines will do more to effect real breed improvement than the mere compilation of records, and that there could be no real opposition to such a scheme. The question as to whether it is desirable or practicable has yet to be discussed. At the risk of being considered prejudiced, we answer both questions in the affirmative.

Commercial Poultry Farming.

By T. W. TOOVEY.

With the Editor's permission I write a few last words on the business side. I give two estimates of the cost of running a laying hen for a year. I cannot give the exact costs as up to the present year I have kept other stock, and it was impossible to keep the costs of the one entirely separate from the other. As the farm now consists entirely of laying hens, if this year continues to be a normal year, I hope next year to give the exact costs of keeping a hen for a year on commercial lines. I am estimating for food to be about at present prices, which are lower than they were a year ago; for trough feeding only, and for wet mashes. The profits on the table cockerels, and the value received for old hens, are employed to reduce the cost of replacements:—

No. 1.—Food for one year	8s.	6d.
Labour, ditto	4s.	0d.
Replacements	2s.	0d.
Other expenses	1s.	6d.
	16s.	0d.

No. 2.—Food per annum	8s.	0d.
Labour, ditto	4s.	3d.
Replacements	2s.	0d.
Other expenses	1s.	0d.
	15s.	9d.

I think the costs here will be as per number two. Other expenses include rent and rates, litter, after deducting the value of the manure sold off, carriage and bonus (I pay very little in carriage), disinfectants, printing ,postage, materials for repairs, and a few inexpensive sundries.

These figures are not a blind guess. I have been through the expenses book, and allocated as fairly as I can the costs to the three kinds of stock then existing on the farm. Next season, if this year continues to be a normal one, I can give, as I said, an exact and accurate account, but I do not think the above is more than a penny or two out either way. The amount for labour includes both rearing, maintenance and clerical work, also that employed in packing and distributing, but nothing for supervision. It is obvious that if each hen's running expenses for the year amount to 16s.—and I cannot see that they can be brought much less—there is not much room for mistakes. The food must be bought well, and the products sold well, if there is to be a reasonable margin of profit. Fortunately, at present, high-class eggs are easily sold, as the supply for a great part of the year is not equal to the demand. It is, however, most essential to obtain and preserve a high reputation for quality. No eggs here are kept in store longer than three days. If not then sold, they are placed in the preserving tanks. All eggs are graded, and no eggs that do not turn the scale at 1¾ oz. pass into grade one. I consider facilities for preserving surplus eggs an absolute necessity, both to insure freshness and to maintain a reasonable price. It is not so much the profit obtained on preserved eggs over spring prices, although this is quite satisfactory, that counts so much, but that a better price can be held out for them when one knows that any surplus that may result can be satisfactorily dealt with. There are fourteen tanks here of reinforced concrete that will hold 70,000 eggs—viz., 5,000 in each tank. I see, at the present time, little chance of filling them all, although this season I have kept my prices higher than for the past two springs. Nearly all our eggs are tinted now, and the British public prefer tinted eggs to white.

Some one wrote a short time ago and asked me to inform them how to sell; this appeared to me a rather hopeless question to attempt to answer. Salesmanship in many competitive industries is a science that only a few can acquire; it is a business qualification of a high order that can only be acquired by experience, and only by those who are naturally qualified to acquire it. As, however, it cannot be said that the producer of high-class eggs is exposed to extreme competition, salesmanship is a simple problem. All the same, some attention and care is necessary to the selling side if the best prices are to be obtained. For the small producer who cannot sell direct to the consumer, co-operation may be helpful, but the large producer should be able to sell his own eggs direct to the retailer, the hotel or the restaurant, and if favourably situated a proportion also to the consumer.

If I were a young man with about £3,000 (that is really about the capital required for a 2,000 bird farm), as soon as I had got my plant and stock established I should employ two men, and then myself be responsible for the commercial side and clerical work. I should also do the repairs and act as a relief to the two poultrymen when necessary. In this way I should have time to get about and find the best market for my produce. A light motor van would probably be necessary for distribution. A careful system of records is very helpful; a record of the laying of each flock, records of all the deaths of old and young should be kept. A chart hangs in the egg room here that shows me at a glance the results of each section day by day. The eggs set, chickens hatched, hen's deaths, chicken's deaths, eggs collected. Each of these items has a column to itself. Organisation is the soul of business; a regular routine of work should be laid out, a day for everything, everything on its day. Tidiness should be insisted on, and everything should be kept in its place. Repairs should be put in hand at once and materials kept in stock, so that there should be no delay. I have been on farms where old plant was lying about in all stages of decay, fences broken down, and all sorts of repairs needed on the plant. Such places give me a sort of hopeless feeling for the occupant.

The accounts should be, I almost said must be kept on the double-entry system, so that if a mistake occurs the accounts will show there has been a mistake made, and then there is a good chance of tracing it.

These remarks apply also to the recording system. If my people were careless in entering up their data I am sure to find it out when balancing period comes round. Buying is important, but is not difficult providing payments are made promptly, prices are published weekly in the Press and daily in the best daily papers. The best thing to do is to go to a good local firm, buy in as large quantities as possible, and pay monthly. The profits in the provender trade are cut very fine. We are all too anxious for business for them to be anything else. Still you may be too sharp in buying if you are always dodging about from one seller to another. Your trade is not worth much to anybody. The thing to do is to enquire carefully as to the reputation of the firm before you open your account, then be frank. If you do not know much about the qualities of feeding stuffs, and say so, put yourself in their hands and ask them to treat you honourably. There is little doubt this will be done if the firm is a good one. Regular customers are highly valued, but do not forget to pay the accounts when due if you wish to keep your credit and buy on the best terms.

MIRFIELD AND DISTRICT POULTRY-KEEPERS' ASSOCIATION LAYING TRIALS, 1925-26.

March 14th closed the fifth monthly period of the test organised by the above association, and held under the management of Mr. W H. Jackson, at the Roberttown Poultry Farm. There has been one death during the month, No. 30, the property of Mr. N. Firth, Hartshead. The health of the flock is good. The following are the positions to date:—

Section 1. Pen Light, Three Birds.—A. Mappin (W.L.), 1190 pts; H. Buckley (W.L.), 1178; N. Firth (W.L.), 1157; H. Cowgold (W.L.), 1127; E. Tate (W.L.), 971; Davey and Son (B.L.), 906.

Section 2. Pen Heavy. Three Birds.—A. G. V. Ermon (R.I.B.), 1289 pts.; J. Raistrick (R.I.R.), 1261; Scott Bros. (W.W.), 1156; A. G. V. Ermon (W.W.), 1155; A. G. V. Ermon (W.W.), 1088; F. Buckley (R.I.R.), 1062.

Section 3. Single Bird, Light.—G. Sheriton (Anc.), 457 pts.; C. F. Fox (B.L.), 453; N. Firth (W.L.), 449; A. Blackburn (W.L.), 434; H. Armitage (W.L.), 410; E. Saxton (W.L.), 383.

Section 4. Single Bird, Heavy.—W. Saxton (W.W.), 729 pts.; N. Firth (W.W.), 497; J. Raistrick (W.W.), 493; Scott Bros. (R.I.R.), 454; Scott Bros. (R.I.R.), 428; J. Godfrey (R.I.R.), 426.

HANTS COUNTY LAYING TRIALS.

Report for Sixth Period ending 31st March, 1926.

Figures are Eggs and Points respectively.

Section A.—Messrs. F. and C. Brundett (W.L.), 385, 3219; Mr. F. C. Holdaway (W.L.), 395, 3202; Capt. McKenzie (W.L.), 363, 2922; Mr. F. C. Holdaway (W.L.), 382, 2902; Capt. McKenzie (B.L.), 328, 2640; Mr. B. A. King (W.L.), 329, 2603.

Section B.—Miss W. B. Clarke (R.I.R.), 428, 3389; Mr. J. H. Thompson (W.W.), 338, 2657; Mrs G. Harper (R.I.R.), 355, 2419; Lord Wandsworth, Agricultural College (L.S.), 318, 2410; Mrs. T. P. Cordery (W.W.), 294, 2376; Capt. McKenzie (W.W.), 260, 2175.

Total number of eggs laid during month:—Heavies, 1615; Light, 1734; total, 3349.

Assessment of Poultry Farmers for Income Tax.

In view of the decision in the King's Bench Division of the High Court of Justice by Mr. Justice Rowlatt, on March 11th, 1926, to the effect that Poultry Farming is Husbandry under the present law, and that assessment should be by Schedule B, the following statement is made as to the steps taken by the National Poultry Council in defence of the interests of those engaged in poultry husbandry.

The question was brought forward in the National Poultry Council, both as to Income Tax and Rating of Poultry Farms, early in 1921, as attempts were reported all over the country to refuse those engaged in poultry husbandry recognition as farmers in the above directions.

After some correspondence with the Ministry of Agriculture and the Inland Revenue an interview took place at Somerset House with Mr. J. G. Dixon, at which the representatives of the National Poultry Council were Mr. T. W. Toovey and Mr. Edward Brown. The result was to the effect that whilst the Inland Revenue Board allowed considerable latitude to local Commissioners, they held firmly to the view that poultry farmers were not entitled to be assessed under Schedule B (rental), but should pay under Schedule D (profits), on the ground that as cultivation or stock breeding is intensified it becomes industrial, and to that extent ceases to be farming. He called attention to the fact that the last Royal Commission on this subject had recommended that all farms be assessed under Schedule D. That proposal, however, had not been passed by Parliament.

Various other steps were taken by the Council. Owing to the fact that until a test case had been decided in the High Court of Justice, and which might be finally carried to the House of Lords, the question of costs which might be incurred prevented any action except affording advice to poultry farmers who were being assessed under Schedule D, and recommending them to appeal to Local or Special Commissioners.

On October 16th, 1922, an appeal against assessment on the higher scale of the poultry farm of Messrs. W. H. Cook, Ltd., Orpington, Kent, was heard by the Special Commissioners sitting in London, who decided that, so far as the poultry breeding side of their business was concerned, they were entitled to be assessed under Schedule B. This was the first practical development. Notice of appeal against this decision was at once given by the Inland Revenue, but was not proceeded with.

In May, 1923, Mr. S. G. Hanson, of Basingstoke, appealed against assessment of his poultry farm under Schedule D, to the Local Income Tax Commissioners who decided against him. He gave notice of appeal to the High Court, but in a consultation with the leading Counsel on this question the following December he was advised to withdraw his appeal, to pay the demand for that year, and to appeal the following year to the Income Tax Special Commissioners in London. This advice was adopted, with the result that in April, 1924, those Commissioners decided that poultry farming is husbandry, and that Mr. Hanson be assessed under Schedule B. The Inland Revenue gave notice of appeal to the High Court of Justice, and have held this over the heads of poultry farmers for nearly two years, delaying the hearing from time to time without any evident justification, and, finally, in January, 1926, withdrawing their appeal, probably due to the fact that the National Poultry Council and the National Farmers' Union had agreed to contribute towards the costs of defence. That would seem to show the department concerned realised that their reading of the law was bad, especially in view of the judgment in the Edinburgh High Court in October, 1925.

An important step was taken at the National Poultry Parliament, Blackpool, July 27th, 1923, when it was resolved to found a Legal Defence Fund in order that the National Poultry Council might be in a position to meet expenses in fighting cases with regard to Income Tax and in other directions. It was hoped to secure £1,000. Some generous donations were made. The total amount promised and received to date is about £450. But for the existence of this fund it is probable that poultry-keepers might have lost the battle, as no individual could have made himself responsible for the heavy costs of a High Court Appeal. It is suggestive that the Inland Revenue has not proceeded with any case which it knew would be backed by the National Poultry Council.

In October, 1923, Mrs .Sharp, of Newton, Lancs., won her appeal before the Local Commissioners, who also decided that excess profits taxes paid by her must be returned. The Inland Revenue gave notice of appeal to the High Court. In the hope that this might be a test case the National Poultry Council decided to undertake Mrs. Sharp's defence. The Inland Revenue then withdrew their appeal.

In November, 1923, the Basingstoke Local Commissioners decided that Bradley Egg Farms, Ltd., Alresford, Hants, be assessed under Schedule D. The owners gave notice of appeal, and the National Poultry Council agreed to give its support. Acting upon advice of Counsel this was not proceeded with.

During 1924 and 1925 a considerable number of cases were decided by Special and Local Commissioners, and with few exceptions in favour of poultry farmers. During this period upwards of a thousand enquiries were received by the Council and advice given as to procedure. In a number of instances the financial support of the Council was promised should any one be carried to the High Court of Justice and thus be regarded as definitely deciding the law. Although the opportunity was afforded to the Inland Revenue by this method of settling the question, nothing was done in that direction. In the meantime pressure was continued upon poultry farmers to pay upon the full scale. In a few instances, however, it was agreed that the assessments should be held in suspension until the Hanson case had been heard.

On October 27th, 1925, a case was decided in the Scottish Exchequer Court, Edinburgh, which was a complete vindication of the claim that poultry farming is husbandry, and that poultry farmers are entitled to the same concessions as are ordinary farmers. This was an appeal by the Inland Revenue against a decision by Income Tax Commissioners that Mr. F. W. Lean, a poultry farmer in Lanarkshire, with an occupation of 33 acres, and keeping about 1,000 head of poultry, be assessed under Schedule B and not D. The four judges who heard the appeal unanimously decided against the Crown, and that poultry farming falls within the term "husbandry" in Schedule B of the Income Tax Act, 1918.

Although it might have been expected that this judgment would have been accepted by the Income Tax Authorities in England and Wales such was not the case, even though it probably led to the withdrawal of the appeal against the Hanson decision by the Special Commissioners. After various efforts to secure a favourable position on the part of the Inland Revenue, that department selected a test case which appeared to be specially favourable to it—namely, that of Mr. W. Nuttall, of Happy Valley, Longridge, Preston, a small poultry farmer with only three acres of land, on which he maintains about 350 head of adult poultry. Had it not been for the prompt action of the Lancashire Federation in reporting this case, and that of the Executive Committee of the National Poultry Council in undertaking the defence of Mr. Nuttall in the appeal of the Inland Revenue against the decision of the Local Commissioners, it might have been lost. The judgment of Mr. Justice Rowlatt, on March 11th, 1926, in the King's Bench Division, London, which has been fully reported in the Press, was a complete vindication of the position taken by the National Poultry Council throughout—namely, that poultry farming is husbandry. It would appear that the Income Tax Authorities have accepted this decision as settling the question so far as the present law is concerned.

Acting upon the advice of the Honorary Solicitors a communication has been issued that poultry farmers who have paid under Schedule D, whether accompanied by protest or not, should at once make claim for repayment of the amount so paid in excess of what was the liability under Schedule B. It may be expected that considerable sums will thus be recovered by them.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s. 6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

G. S. H. (Marston Green) writes: "Will you advise me as to the following trouble with young chicks? The excretion is light yellow and is loose, and the big trouble is it sticks to the feathers round the vent and to the vent. The chicks were fed after 48 hours on grit, followed one hour after by dry mash. . . . . ; on which they have been fed since. They are in a brooder, which, unfortunately, in the sun reached 100 degrees, but it was for a very short time. Will you give me the symptoms of B.W.D.? Hope this is not it. Am giving boiled rice and charcoal to check the looseness." My correspondent need not fear, these are not the symptoms of B. W. D. I have not space to give them here. The trouble arises from the mash, it is too concentrated to be fed to young chicks less than three days old. I am not reflecting upon its quality or suitability as a chick mash, but it is a mistake to use it at this age, and it has caused digestive and liver trouble. Under these conditions, the boiled rice is but adding fuel to the fire, and a far better treatment would have been a hopper of dry bran always before the chicks. One of the chief values I attach to the feeding of dry bran to chicks is that it does prevent diarrhoea, which is usually caused by the use of starchy foods.

Worried (Hartlepool). I have examined the eggs you sent me. They one and all contained chicks which had reached the 18th day. As far as I could see they were perfectly normal, and there was no indication that anything had occurred during incubation to prevent their hatching. If it had been possible, I would have liked to have sent these chicks to a laboratory for examination. I have examined over 2,000 eggs this year, and in many cases it has been impossible to say why they have not hatched. If an examination had been made, I am convinced that in many cases we should have found the failure to hatch was due to disease. I am sorry I cannot help you. (2) I do not think you should keep the cockerels to mate to these hens, there is nothing to be gained by it, and there is always a big risk with such close in-breeding. Isn't the argument that breeders owe their success in the laying tests to line-breeding broken down by the records made by first cross pullets in the tests. (3) This very small egg without a yolk was laid by a pullet after the ovaries had ceased to be active. There is usually some irritation of the central portion of the oviduct when this occurs, the albumen which is secreted passes down the tube into the uterus, and is there covered with shell. Your friend is quite wrong when he says the pullet will not lay again.

X. L. (Bootle). No, my friend, it is really impossible for a hen to deposit part of its liver in the egg it lays. Only this week, a reader has written to say that one of his pullets has laid its heart in an egg, and he has sent me the shell with what he takes to be the heart in it. How the pullet is supposed to exist without a heart, I don't know. What you take to be a bit of liver is congealed blood, and the explanation has been so often given in these columns that I am afraid I cannot give it again now. (2) If your eight pullets have laid 61 eggs each since February 1st, they may certainly be accounted "200 eggers," and they should breed some first class layers if properly mated next season. As you only bought them in January, and have no winter record, you must ignore this entirely, and may place reasonable reliance on the three months record, from 1st February to end of April.

G. (Nairn) is worried as to his stock (White Leghorns), which he has. They are very fine layers, but inclined to be small, and there is a decided tendency to crooked breast bone, which he does not believe to be due to too early or faulty perching. He wants to know whether he can check this tendency to soft bone by feeding, if not, what suggestion I can offer. Very fine layers are often very precocious. Early production means that much of the lime needed for the formation of bone is eliminated in the egg, and so we get fine bone, which is the characteristic of the heavy producer, and in extreme cases the soft bone which causes the crooked breast and one form of rickets. My correspondent should be careful of the feeding of the breeding stock, and see that the ration contains an adequate amount of calcium salts, and if there is a deficiency, a salt mixture should be added. But more particular attention should be given to the growing stock. If possible, this should be given free range, and fed chiefly on good plump white oats, and very little mash. If free range is impossible, then oats and wheat should be the grain food, the mash should be bulky, no maize used, and the salt mixture so often given in these columns, added. This is as far as I can help him with the feeding. Now he must be careful with his breeding. I would mate to a male from a dam with a record of about 230 eggs, not more. If the dam was a little slow to mature, all the better. The male should have plenty of bone without being coarse. I think if my correspondent follows on these lines he will effect an improvement.

New Reader (Selby). Your feeding is hardly correct, but it in no way explains the high mortality, which I believe to be due to the type of brooder you are using. The lamp in this brooder uses up too much oxygen. I am sorry I cannot name it here. I have experimented with it three or four times and have never reared good chicks with it. As you do not wish to buy a new brooder, see if you can rear the remainder with a hurricane lamp, in a tea box; they will not require much heat now they are three weeks old. A little cod liver oil added to the mash would be more beneficial than an iron tonic. (2) For your conditions, I would prefer the Rhode Island Red to the Sussex. (3) The true Rhode Island Red does not contain Sussex blood. When the breed was first introduced to this country, a few breeders tried to breed it, by crossing the Red Sussex and Buff Rock.

C. F. (Cheshire). The drop in the egg yield is not seasonal, and the fact that the birds appear listless and their combs are dark is an indication that there is something wrong with the food. As a rule people suspect the food even when their birds are suffering from roup, but you appear to be an exception. The best plan will be to give them a dose of Epsom salts, as much fresh green food as you can get, and change the mash. If you will send me samples I will see if I can find what is wrong.

Carefully examine the grain yourself, and see if there is any sign of mould in it. (2) The sample of chick feed contains too much hemp ,but is otherwise a good one.

H. A. S. (Glasgow) has chicks which are sneezing and he wishes to know whether I can tell him the cause and cure. There may be many causes, and I can only suggest floor draughts, over-heating, huddling, and faulty ventilation. There is also the possibility of the dust from peat moss litter. If he can find out the cause, the best treatment will be 40 grains of citrate of iron and quinine to each gallon of drinking water. The sample of chick feed sent is not a good one, it contains too much millet and far too little wheat.

F. F. (Notts) sends 12 Leghorn eggs which have not hatched, and wants to know the reason. All contained well-developed chicks, but the membrane was tough and hard, as was the shell itself. F. F. should have sent some particulars. The indications are insufficient moisture. Probably a hot-air machine was used and both felts removed, this resulted in the eggs drying down too quickly. In answer to his second question. It would not pay him to attempt to fatten Leghorn cockerels so late as he proposes. His best plan will be to sell them for what they will fetch as soon as he can detect their sex.

T. E. H. (Wickford). If the breeder supplied you with a male bird, and it does not fertilise the eggs, it is up to him to replace it. Legally he is compelled to do so. If he refuses to do this, you can only take action against him in the County Court, I am afraid I cannot help you more than this. (2) Your feeding is quite correct, and we must look elsewhere for the cause of the chicks not flourishing. I am inclined to believe you are over-crowding. There does not appear to be any active disease. Just give them a little more room, see they have plenty of green food. I do not think an iron tonic would help them so much as a change of ground, and care taken that they do not crowd at night. (3) Yes, occasionally eggs with three yolks have been reported to us, the one mentioned is not a record. The explanation is simple, and has often been given in these columns.

H. H. (Kineton) wishes to know what I recommend for scratching litter in chicken houses. He has been using wheat straw but it is scarce and expensive in his district. He asks if I think peat moss litter is equally as good. He has heard that it has antiseptic properties and checks insect pests, and wishes to know whether this could be used for the birds to scratch in. I much prefer cut wheat straw to anything else. I know the expense is a consideration, but I think it is well worth the additional money. Peat moss litter is deodorizing, but it has its disadvantage, and that is, it becomes very dusty and often causes trouble with the respiratory organs and causes watery eye. For this reason I never like it for chicks, and I would much prefer never to use it, although I know some people do successfully, but these complaints are quite common.

J. H. A. (Marlow) writes that he is in trouble with his hatches. In his Hearson 100-egg incubators, in which he usually gets 80 to 85 per cent., things have gone wrong for the last two hatches. The chicks have come out sticky and feeble, and a great many have died half-hatched, and many hatched are cripples. The eggs he obtained from a farm near, from trap-nested birds, and they have started pipping on the 17th day. Here, I am sure, we have the source of the trouble. My correspondent should get his thermometer tested. He says he runs the incubator at 104 the first ten days and then at 105. I am confident that the temperature has been too high and that accounts for this premature hatching, the weakly chicks, and the sticky mess.

J. J. R. (Dunoon) writes that he is unable to obtain alfalfa meal, but has plenty of fresh green food all the year round. That being the case it is quite unnecessary for him to bother about alfalfa. He should replace it with an equal weight of bran. As there is an abundance of green food at this season of the year, alfalfa meal is not necessary in the grower's mash. In the layers' mash it should replace one part of the bran if there is a shortage of green food. For the first six days the chicks should only be given grain, with a hopper of dry bran and Quaker oats always before them. My correspondent will appreciate that during these six days, as they have not absorbed the yolk, they will require comparatively little food.

M. R. (Co. Wexford) writes that she is much worried because most of her Light Sussex chicks have black markings on their beaks this season, visible even in chicks of three or four weeks old. The hens were bred from good stock. M. R. wishes to know whether these black markings will count against the stock and what the cause is. No, they will not count against her stock in the least. The standard of the breed says, "Beak white or horn," and presumably the black markings would be the horn-coloured beaks. My correspondent need not worry in the least on that account. It is quite common for Light Sussex to have horn-coloured beaks.

E. M. C. (Ewhurst) writes:—"I should be glad if you could tell me through your publication what is wrong with my two-month-old chicks. Several of them have care patches on their shoulders and back, and one or two of the worst cases have scurfy skin and sore vents. At the first appearance I suspected some parasite and powdered all the birds with flowers of sulphur, and disinfected the house with Izal. No more birds seem to be attacked, but those already suffering do not seem to get right. The birds otherwise seem quite fit and their appetites are good."—My correspondent should recognise that when young chicks are feathering, more particularly in the cockerels, there are bare patches on the shoulders and back, and this would be the real cause of the trouble. In that event four per cent. linseed meal added to the mash would be very helpful. Should, however, there be any real skin trouble similar to favus, the application of glycerine to the spot, with one per cent. carbolic acid, should effect a cure.

A. S. (Pershire) writes: "It would be a great help to me, and I daresay to many others, if you were to follow up our Editorial of the 14th with instructions as to how to remove or pare down cocks' spurs." The operation is a very simple one. Some breeders burn them down with a red-hot poker or iron, while others prefer to use a very hot potato. This softens the horn of the spur, and then it can be easily pared down with a sharp knife. The potato, of course, should be very hard and be held on the spur for some time. Care should be taken not to pare the quick and make it bleed.

POST-MORTEMS.

H. W. The post-mortem examination of the R.I.R. hen showed that the cause was fatty degeneration of the heart and liver, and that the kidneys were also becoming affected in like manner. She was exceedingly fat, but apart from the above-mentioned lesions was apparently healthy, and she can hardly be typical of what has carried off the others, as fatty degenerations are not infectious or contagious, but are diseases affecting, as a rule, only individuals, only a very small percentage of a flock becoming affected. The cause is unknown, and there is no treatment that can stay its course. There was nothing wrong with the mash, which was of good quality, but if all the birds are in the same condition of fatness, they are exposed to a variety of troubles from that cause alone; peritonitis is a likely trouble, coming from rupture of the uterus, inflammation of the uterus from the decomposition of soft-shelled eggs (often laid by fat birds), and extension of infection from that organ to the peritoneum, gangrene of the ovary and ova, from pressure exerted by the masses of abdominal fat.

Mrs. F. B. The post-mortem examination of the Croad hen showed that blood-poisoning was the cause. There was a two-inch wound over the left hip, which had scabbed over, and from this infection had spread practically all over the body, the condition being known as septic cellulitis. There were no signs of poisoning internally, such as would be produced by rat poison,

(Continued at Foot of Column Next Page).

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

B. W. D.

Capt. Charteris, writing on this subject, tells me he was asked for advice respecting a farm, the name of which he cannot give here for obvious reasons, where there had been 75 per cent. mortality with the chicks in 1923-1924 and 1925. He came to the conclusion that B.W.D. was the trouble. In fact, that was fairly obvious. He therefore got the breeding stock blood-tested once only in December, 1925, and over 60 per cent. proved to be carriers and were destroyed.

Eight hundred chicks have been hatched on the farm this year. The losses have been negligible, and as far as can be told none at all from B.W.D. This appears remarkable on a farm which had suffered severely from B.W.D. for three years, and is a splendid proof of the value of the test.

What we have been trying to do is to get the correct facts in relation to the Test. I think now we may definitely say that everyone understands its value. The real question is that of reliability, and the real point which we have been striving to make is that one test alone is not absolutely reliable. That is confirmed by the statement issued by the Ministry of Agriculture's Veterinary Adviser.

What we do feel is, that breeders who are attempting to stamp out this scourge (I mean through the Blood Agglutination Test) should receive full credit for the effort they are making, not only on behalf of themselves, but on behalf of the industry, and that if purchasers of stock from these breeders are unfortunate enough to lose chicks from B.W.D., instead of vilifying the breeder they should give him credit for the effort which he has made. On the other hand, when the breeder is notified of an outbreak of B.W.D. he should not insist that it is impossible because he has had his stock blood-tested.

EARLY HATCHED CHICKS.

Capt. Charteris has written me another very interesting letter. He says :—

> "Dear Mr. Newman,—You were interested to hear the results I had obtained, using the Wellingham experiment feed, plus Cod Liver Oil on **early** hatched chicks, i.e., hatched November 1st. You will perhaps remember I wrote to tell you I had never seen chicks do so well and feather up so quickly, the means of brooding being with inverted gas radiator throwing the heat down on the chicks' backs.
>
> You may now like to hear how they have progressed. They started laying April 5th—five months and five days—and the eggs are of good size for pullets. These chicks you will remember are **Light Sussex.**
>
> I should like to know whether it is your experience that November hatched chicks start to lay exceptionally early. I should also like to hear when you consider the pullets could safely be bred from."

I have had very little experience with November hatched chicks, so cannot answer his question definitely, but I have always found this inclination to mature early, and have been seeking for some years to find an explanation of it, but have so far failed.

With regard to the question of breeding from these pullets. I see no objection to doing so next season. If I were considering their records I would take it from the date of the first egg. It is interesting to see that the size of egg is so good. One of the peculiarities of the late hatched chicks (I am speaking now of, say, May or June hatched) is that, although they may not come into lay until the end of December, their eggs, as a rule, are remarkably small.

I hope Capt. Charteris will be kind enough to give us a further report of these November hatched chicks, and let us know, say, at the end of September what they have done.

DEAD-IN-SHELL.

A Gloucestershire correspondent writes that he would be glad to know the cause of dead-in-shell and prevention if possible, and asks, "Why is the percentage greater in an incubator than under hens?"

I really am afraid this is a problem which I cannot find space to enter into here. The causes of dead-in-shell, as we know, are so many, but after examining considerably over 2,000 eggs this year I can only repeat what I have previously said, that at least 70 per cent. of the cases we can trace to the stock birds.

As an interesting point, might I refer to one dozen eggs received a few days ago. All these had perished about the eighteenth day. In all respects the eggs were perfectly normal. Nothing had happened during incubation which would have caused this mortality. What are we to conclude

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etc., but the internal organs were in a condition consistent with the septic condition.

Mrs. F. T. The post-mortem examination of the W.L. pullet showed that she was very heavily infested with worms, the intestines being packed with tangled masses of these parasites. To treat, starve over night, and in the morning give a small mash with the following worm mixture thoroughly mixed in:—For every 100 birds steep 1 lb. of tobacco stems, or cheap shag tobacco, in as much cold water as will cover it for two hours, and then mix the whole with the mash; after an interval of two hours give a very small mash, containing 11 ounces of Epsom salts for each 100 birds. The birds should be confined to the houses while undergoing this treatment, and the litter, droppings and voided worms swept up and burned, and the whole course of treatment repeated after an interval of a fortnight.

from this? Was it that the stock birds were at fault, or did the chicks lack the vitality to hatch? But what does appear to me of interest would be that the chicks which arrive at this stage of incubation and perish should be examined to see whether there are any symptoms of disease which would have been the cause of the dead-in-shell.

On the point as to why there is a greater percentage in an incubator than under hens, I think too much emphasis is placed upon this. We are too fond of that fancy little story of the hen who stole her nest and brought home thirteen chicks, but my experience with travelled eggs under hens has been that they rarely obtain more than eight or nine chicks out of a dozen, and I do not believe that this wide difference between the hen and the incubator exists. Admittedly, there is a difference, but I must leave it at that for the present.

My correspondent further asks :—"How is the variation in time of hatching to be accounted for?" This I have frequently explained in "Eggs."

I am wondering whether he means the variation in the time of hatching in the incubator. This may be largely a question of the temperature in the different parts of the egg chamber, but when we have a number of eggs in one machine, we must also recollect that there will be a great deal of difference in the texture of the shell, and the thicker and harder the shell the slower will the action of the carbon dioxide be upon it.

We are publishing the following by the courtesy of Professor Willard Thompson, Director of the National Poultry Institute.

NATIONAL POULTRY INSTITUTE.

General Progress.

The spring opens with an extremely busy season at the Experimental Farm of the National Institute of Poultry Husbandry. Those who have been following the building and construction of the Plant during the past year will be interested and gratified to learn that the Administration Building has at last been started. The contract, which has been placed in the capable hands of Messrs. Thomas Lowe and Sons, Ltd., Burton-on-Trent, is well underway and promises to be complete by early summer. At least it is hoped that the building and the grounds surrounding it will be complete by the time that the Tenth Annual Harper Adams Poultry Conference is held. This Administration Building will furnish sufficient class-room to accommodate the various classes in Poultry Husbandry which may be held at the College under the auspices of the Institute from time to time. The large classroom will occupy the east ends of the building, while at the west end, a room of corresponding size will be given over to incubation purposes. Four good offices are supplied for the use of the Institute staff. The Administration Building will become the official headquarters of the National Institute of Poultry Husbandry, both for educational and experimental work.

One of the most live and active parts of the Experimental Farm during the spring is the new 100 feet Multiple Unit Brooder House. This house consists of 10 pens, each 12 feet deep by 10 feet in width, and each providing sufficient space and accommodation for approximately 250 chicks. As this issue goes to press the Brooder House is running at full strength and giving excellent results. The general programme in the Department of Poultry Husbandry for the present spring, besides carrying on the various experimental projects under weigh, consists of rearing sufficient chicks in the various breeds to meet the demands of contemplated experimental projects for next year. The ranges at the farm have carried over the winter in remarkably good condition, and will furnish ideal environment for the growing chicks during the 1926 season.

In the Department of Waterfowl Culture three important additions have been made during the past few weeks. A beginning has been made with Roman geese by securing 30 eggs for incubation purposes. Particular studies will be made during the coming season in the economy and commercial value of the lighter weight goose to English poultrymen or farmers. A similar beginning has also been made with Embden geese, the latter being representative of a larger type of goose. A part of the Poultry Plant, including two good size ponds, has been cleared of all old hedges and similar refuse matter, thus providing goose paddocks that will at once be efficient and attractive. The third addition to the Department of Waterfowl Culture lies in the securing of foundation stock in Aylesbury ducks as representative of the heavier type or breed of ducks, which may be kept more especially for meat purposes, rather than table eggs. The various flocks of White Indian Runner, Khaki Campbell and Buff Orpington ducks, all representative of the egg-laying duck type, have been carrying on remarkably well during the winter and spring, again proving the efficiency of these breeds in the matter of egg production. With the maturing of the geese and Aylesbury ducks during the present summer the Department of Waterfowl Culture will be practically completed.

In the Department of Pigeon Culture progress may also be reported at this time. The Experimental Pigeon Building consisting of four rooms, each 10 feet square, has been completed, as has also the covered fly which surrounds the building for a distance of 12 feet out in every direction. This equipment, capable of handling at least 75 pairs of pigeons, will be immediately put into use in various experiments having to do with table pigeon production. The Director desires to express his appreciation of the first gift made to the Department of Pigeon Culture which has taken the form of two beautiful pairs of Bordeaux pigeons presented by Mrs. Emery, Birmingham. One of the buildings formerly used by the College Poultry Department has been given over to the Department of Pigeon Culture. This will be used for young stock during the period between the leaving of the nest and maturity.

In the Department of Rabbit Culture the coming of the Specialist, Mr. W. K. Wilson, has given great impetus to the development of that line of work. The old army hut, which formerly constituted the headquarters of the College Poultry Department, has been most successfully transformed into a modern rabbitry, providing not only ample space for many hutches, but rooms for feed, wool and furs, and offices. Foundation stock in the various breeds and varieties of rabbits which are to be kept has been secured from among the leading breeders in England. At the moment this foundation stud enumerates several representatives of the following breeds or types: White Angoras, Chinchillas, Blue Beverens, Havanas, Chocolate and Tans, Lilacs, Argente de Champagne, Sitkas, Silver and Fawns, Silver Browns, and New Zealand Reds.

Final mention should be made of the very satisfactory progress which has followed the installation of the Department of Goat Husbandry. The splendid gift of Mrs. Lilly Hines was mentioned in the last issue of this Journal. At the present moment most of the goats are being milked and recorded. Special emphasis during this first year at any rate will be placed upon the milch production side of the goat question. The goats are already beginning to fit in most admirably with both the poultry and rabbit departments.

PRESTON AND DISTRICT U.P.S. TEST.

Held at Hutton, Fifth Month.

Figures are Eggs and Points respectively.

Section 1. White Leghorns and A.O.V. Light.—P. Williamson (W.L.), 251, 1599; R. Beesley (W.L.), 205, 1493; F. C. Tomlinson (B.L.), 212, 1431; C. Morey (W.L.), 227, 1282.

Section 2. White Wyandottes.—H. Sutton and Sons, 286, 1886; G. H. L. Armstrong, 239, 1623; J. Rainford, 218, 1500; J. T. Finn, 233, 1464.

Section 3. R.I.R. and A.O.V. Heavy.—R. Moon and Son (R.I.R.), 267, 1890; G. Cobham (R.I.R.), 266, 1799; J. Basnett (R.I.R.), 264, 1684; H. Booth (R.I.R.), 227, 1582.

OUR FRONT COVER.

Our Front Cover this week is an interesting one. It depicts pupils on The Lady Rachel Byng's farm learning how to make money by wool farming.

Before us as we write we have the Lady Byng's booklet on the subject. Her articles in these columns aroused a tremendous amount of interest, and gave a great impetus to an industry which, in this country at least, has been sadly neglected.

Although our own knowledge of Rabbits is negligible, we must confess that we have read Lady Byng's booklet on the subject with real interest, and if time permitted might be tempted to take up Angora Rabbit Breeding as a hobby.

The book contains most useful advice to the beginner, and will be read with interest by all who **are** interested.

Lady Byng tells us that, in addition to the money that can be made by the pelts, there is an ever-waiting market for the beautiful silky wool they grow on their bodies. Up to now all this wool has been procured from France. So thousands of pounds that might have gone into British pockets have been forwarded to the wool farmers in foreign countries.

It is said, we are told, that the flesh of the Angora Rabbit is sweeter than that of any other, but Lady Byng remarks that it would be a waste to sacrifice an animal whose annual supply of wool is so valuable.

It surely is a great temptation to take up this branch of rabbit farming, for Lady Byng tells us that if kept in any number over 300, after paying for their board and lodging, the cost of which varies in different parts of the country from 6s. to 9s. per annum, they should leave a profit of about £1 per head annually from the sale of their wool alone. She adds, "Decidedly a living can be made, but not until the third year."

THE INTERNATIONAL EGG LAYING TEST.

SUMMARY OF LEADING PENS.

Figures are Eggs and Points to date respectively.

Large Breeders, Section 1.—Miss A. Paul, Blairgowrie, 1038, 1132; I. B. Gow, Cobham, 983, 1065; J. Underwood, Loughborough, 1002, 1006.

Large Breeders. Section 2.—R. Rodwell, Nelson, 999, 1024; F. Snowden, Cowling, 989, 996; G. Mart, Buxton, 912, 932.

Large Breeders. Section 3.—C. Bates, Samlesbury, 1072, 1129; R. Rodwell, Nelson, 1084, 1127; E. Yates, Penwortham, 1048, 1052.

Large Breeders. Section 4.—F. Harvey, Bretherton, 1105, 1145; R. Rodwell, Nelson, 1134, 1074; W. Beattie, Northampton, 953, 1074.

Small Breeders. Section 5.—F. B. Evers-Swindell, Ruthin, 527, 537; H. Seddon, Holmfirth, 490, 529; A. V. Wallis, Oxford, 495, 556.

Small Breeders. Section 6.—R. W. Hully, Clifton, Manchester, 376, 419; Mrs. M. B. Clay, Long Preston, 399, 421; W. A. Lansley, Whitchurch, 406, 395.

Small Breeders. Section 7.—Dr. J. E. Helm, Rossendale, 584, 585; J. and W. Purdie, Lanark, 564, 580; Mrs. M. B. Clay, Long Preston, 572, 573.

Small Breeders. Section 8.—R. Hodgkinson and Son, Culcheth, 510, 528; Col. S. Sandbach, Abergele, 452, 492; W. H. Fletcher, Woodplumpton, 448, 508.

Single Bird. Section 9. Light.—A. V. Wallis, Oxford, 113, 145; W. Golden, Rugby, 132, 136; W. Rogers, Market Drayton, 124, 121.

Single Bird. Section 10. Heavy.—P. G. Espinasse, Oxon, 117, 129; J. Rainford, Penwortham, 113, 131; Gettern Model P.F., Ainsdale, 119, 120.

Juvenile Breeders. Section 11. Light.—R. Collinson, Garstang, 451, 459; Miss W. Banks, Freckleton, 414, 421; J. Collinson, Garstang, 428, 433.

Juvenile Breeders. Section 12. Heavy.—R. Gabbott, Little Hoole, 537, 528; H. Sutton, Little Hoole, 551, 538; Miss E. Barron, Catforth, 519, 515.

LAINDON LAYING TEST.

Fifth Report.

Section 1. Light Breeds (Five Pullets).—Rowland Cooke, 343 eggs; H. Maycock, 347; L. J. Willis, 312. Monthly Certificate: L. J. Willis.

Section 2. Heavy (Five Pullets).—L. Potter, 337 eggs; R. Cooke, 326; Mrs. Fowler, 271. Monthly Certificate: F. Freeborn.

Section 3. Single Bird (Light).—A. Fox, 85 eggs; C. Newman, 78; S. Stock, 69. Monthly Certificate: A. Fox.

Section 4. Single Bird (Heavy).—J. A. Howarth, 108 eggs; Miss N. Grubbe, 91; J. Eccles, 88. Monthly Certificate: Mrs. Clarke.

Section 5. (Gift).—W. Dillenz, 102 eggs; Miss N. Grubbe, 94; 1, Mybrea, 92. Monthly Certificate: Miss Grubbe.

Actual Highest Individual Score.—Mrs. Clarke, 26 eggs.

THE NATIONAL UTILITY POULTRY SOCIETY.

NATIONAL EGG-LAYING TEST, 1925-26.

Report for the Fifth Month—21st February, 1926, to 20th March, 1926.

With more favourable weather conditions prevailing throughout the greater part of the fifth month a considerable rise in egg production is to be reported; the total number of eggs laid reached 29,788—an average of 19.58 eggs per bird. These figures compare with 23,089 and 15.09, respectively, for the previous month.

All breeds shared in this improvement, but the sitting breeds showed the better results, as they have done from the commencement of the test. There has been an unusual freedom from broodiness, which has been to the advantage of the heavy breeds, but towards the close of the month under report it became a little more prevalent, and 66 birds were removed to the broody coops, only two of which were of the light varieties.

The highest daily collection was 1,155 eggs on the 21st day of the month, and the lowest 940 on the first day.

Some very good records were made. The best in the five bird pen sections were 124 eggs by Rhode Island Reds, and 125 eggs by White Wyandottes; while in the Championship Section (10 birds) the highest was 226 eggs, laid by White Wyandottes, which have held the lead from the start of the test. In all, 129 pens put up an average of 20 or more eggs per bird in the 28 days.

In the White Wyandotte section the fight for first place is a very close one, with only four eggs separating the first three pens.

The two individual birds mentioned last month as having laid the highest number of eggs, namely, Mr. S. E. S. Burnett's Pullet No. 828 and Mr. A. K. Speirs Alexander's Pullet No. 169, both White Wyandottes, still hold the record, the former with a score of 116 eggs (including two seconds), and the latter with a total of 118 eggs(but of which eight have been below the standard.

Up to date 138 birds hold records of 100 eggs or more, and during the month under report five laid 28 eggs; four Rhode Island Reds and one White Leghorn.

The percentage of first grade eggs during the month was 90.32, but the influence of the long spell of dry weather, accompanied by strong easterly winds which was experienced throughout the last three weeks, was to be seen in a slight all-round reduction in weight of all the eggs laid towards the close of the month.

The general health of the birds was good, and there have been no fresh cases of infectious disease for some weeks. Although a number of birds were affected during the outbreak of diphtheria and fowl pox not a single death occurred. There are now no birds under treatment for either of those troubles.

EGG PRODUCTION OF LEADING PENS.

Figures are Total Points to date.

Section 1.—Championship (Ten Pullets).—A. K. Speirs Alexander, Roughton, via Norwich, 794; J. E. Hughes, Ware, Herts, 874; Miss N. B. Maddison, Dane Hill, Sussex, 872; Leslie Williams, Liss. Hants, 841; W. M. Golden, Leire, Rugby, 817; M. F. Phelan, Northam, Devon, 815.

Section 2. White Leghorns (Five Pullets).—Worcestershire P.F., Bromsgrove, 522; Brig.-General A. C. H. James, Bletchingley, 446; John Potter, Worsley Mesnes, Wigan, 441; Mrs. E. M. L. Knight, Odstock, Salisbury, 437; H. R. Hunter, Winchester, 429; Dr. E. P. Wrinch, Trimley, Suffolk, 417.

Section 3. Black Leghorns (Five Pullets).—Frank Snowden, Cowling, 435; Richard Rodwell, Nelson, 430; Miss Mallam and Mrs. Gifford, Wantage, 380; W. P. White, Colne, 379; Mrs. Mignon E. Clay, Long Preston, 345; I. Margerison, Burnley, 343.

Section 3a. White Bresse (Five Pullets).—H. R. Hunter, Winchester, 366; John Thornhill, Great Longstone, 363; E. P. Townley, Woodcote, 360; Sir Charles McGrigor, Bart., St. Germans, 335; K. A. Crawford, Norwich, 318 ;J. H. Blaksley, Dorset, 299.

Section 4. Any Other Light Breed (Five Pullets).—J. H. Thompson, Alton, 386; Hon. Marjorie Cross, Broughton-in-Furness, 362; Stanley Street-Porter, Ely, 361; J. R. Joy and Co., Rotherfield, Tunbridge Wells, 361; W. R. Morris Hammond, Banbury, 323; Crossley Sykes, Inveresk, Midlothian 308.

Section 5. White Wyandottes (Five Pullets).—G. H. Rayner, Boothby Hall, Grantham, 496; Capt. J. Thompson, Shrewsbury, 496; S. E. S. Burnett, Arbroath, 492; Arthur Gawthropp, Northampton, 475; S. and T. Greenall, Grantham, 465; Alvaston Poultry Farm, Alvaston, 462.

Section 6. Rhode Island Reds (Five Pullets).—J. B. V. and W. Cummings, Carlorps-by-Penicuik, 492; A. H. Donkin, Shorncliffe, 421; H. R. Hunter, Twyford, 403; W. and T. Salt, Enderby, 398; H. J. Berry, Ottery St. Mary, 386; Gettern Model P.F., Ainsdale, 384.

Section 7. Sussex (Five Pullets).—Mrs. E. M. Knight, Odstock, Salisbury. 439; Brig.-General Kincaid-Smith, Clacton-on-Sea, 391; Wilson Beattie, Rothersthorpe, 386; Edward Clough, Uplyme, 380; Mrs. F. G. Poole, Tunstall, 367; Marcus W. Slade, High Wycombe, 348.

Section 8. Any Other Heavy Breed (Five Pullets).—Miss Harrison Bell, Welwyn, 457; Miss P. Mills, Bishop's Castle, Salop, 422; A. A. Plimpton, Beverley, 405; Miss C. Beck, Great Amwell, 370; Charles Prior, Ropley, 351; Mrs. Ward-Jackson, Kingsland, 343; Col. S. Sandbach, Abergele, 343.

Section 9. For Small Breeders (Two Pullets).—G. E. Pearson, Epperstone, 208; J. M. Johnston, Exbury, Southampton, 201: Fred Deakin, Penvffordd, 197; E. Fownes, Hanworth, 197; M. W. Brightmore, Leicester, 180; Walter Westwood, Shotton, 173.

Food Purchase Scheme.

From a number of letters recently received, it appears that it is not a well-known fact that grains of every lescription can be purchased under this scheme.

May we therefore state, that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned n these columns.

We cannot give prices here, as space will not permit, but price lists will be despatched immediately to any nember, if application is made to this office.

Referring to the odd cwts. which are now to be supplied under the Food Scheme, 9d. per cwt. extra will be harged on the prices already shown.

This is to cover the extra expenses and handling which the one-cwt. business involves.

If the total order amounts to 5 cwt. and over, this extra charge will not be made.

PRICES OF MASHES, ETC., PER CWT.

The following meals can be supplied in 5-cwt. lots and upwards of one kind, free on rail:—

F.O.R.	Chicks	Growers
Liverpool	11/0	11/0
Liverpool	11/0	11/6
London	11/6	11/6
London	11/3	11/3
Leith	11/3	10/9
Leith	10/3	10/3
Leicester	11/3	11/3
King's Lynn	11/0	11/0
Belfast	12/9	12/3
Bristol	11/0	11/0
Southampton	11/6	11/6
Plymouth	12/0	14/0
Aberdeen	12/0	13/6
Harrogate	11/6	11/6
Glasgow	12/0	12/0
Staffs	11/0	11/0
Sussex (East)	11/6	11/9
Herts	11/3	10/9
Sussex	11/6	11/6
Bradford	11/6	11/6
Birmingham	11/6	11/6
Greenock	11/6	12/0
Tewkesbury	11/9	11/9
Bolton	11/9	11/9
Middlesbrough	11/3	11/0
Partridge Green, Sussex	11/3	11/6
Essex	11/0	11/0
Birkenhead	10/6	10/6

SPECIAL OFFERS.

FISH MEAL, with the following analysis:—
OIL ... ... 4.5 per cent.
ALBUMINOIDS ... ... 55.60 per cent.
PHOSPHATES ... ... 16.18 per cent.
Prices F.O.R. LONDON
Under 5 cwts. ... ... 18/9 per cwt.
5 cwts. orders and upwards ... 17/9 per cwt.

FISH MEAL:—
OIL ... ... under 4 per cent.
SALT ... ... under 3 per cent.
ALBUMINOIDS ... 55/60 per cent.
PHOSPHATES ... 15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—
ALBUMINOIDS ... 35/40 per cent.
FATS ... ... 10/15 per cent.
PHOSPHATES ... 25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—
ALBUMINOIDS ... 57/62 per cent.
FATS ... ... 10/15 per cent. at 15/6 per cwt.
F.O.R. MIDDLESBROUGH.

DRIED SEPARATED MILK, with the following analysis:—
FAT ... ... 1.80 per cent.
PROTEINS ... ... 32.95 per cent.
MILK SUGAR ... ... 51.85 per cent.
MINERAL MATTER ... 7.00 per cent.
MOISTURE ... ... 6.40 per cent.

CARRIAGE PAID at Prices:—
One ton and upwards ... ... at 41/0 per cwt.
10 cwts. and upwards ... ... at 42/0 per cwt.
1 cwt. and upwards ... ... at 43/0 per cwt.

PURE UNEXTRACTED DRIED YEAST:—
F.O.R. LIVERPOOL ... ... at 21/0 per cwt.

PRICES OF MASHES, ETC., PER CWT.

The following meals can be supplied in 5-cwt. lots and upwards of one kind, free on rail:—

F.O.R.	Breeders	Chick
Liverpool	11/3	11/9
Liverpool	12/9	12/9
London	12/6	12/9
London	12/3	12/6
Leith	11/9	11/9
Leith	10/9	11/3
Leicester	12/0	12/6
King's Lynn	11/6	12/3
Belfast	13/0	14/0
Bristol	11/9	12/6
Southampton	12/6	12/6
Plymouth	12/6	14/3
Aberdeen	13/6	13/0
Harrogate	12/3	12/9
Glasgow	12/0	13/0
Staffs	12/3	12/0
Sussex (east)	12/6	12/0
Herts	11/6	11/3
Sussex	12/6	12/6
Bradford	12/3	12/9
Birmingham	12/3	12/6
Greenock	12/9	13/3
Tewkesbury	13/0	13/3
Bolton	12/9	12/9
Middlesbrough	11/3	12/3
Partridge Green, Sussex	11/0	12/3
Essex	11/9	14/3
Birkenhead	11/3	11/9

FATTENING MASH.

F.O.R. LIVERPOOL	11/6
F.O.R. LIVERPOOL	12/6
F.O.R. LONDON ...	12/6
F.O.R. LONDON ...	12/0
F.O.R. LEITH	11/0
F.O.R. LEITH ...	11/3
F.O.R. LEICESTER	12/3
F.O.R. KING'S LYNN	11/6
F.O.R. BELFAST ...	12/6
F.O.R. BRISTOL ...	11/9
F.O.R. SOUTHAMPTON	11/9
F.O.B. PLYMOUTH	11/9
F.O.R. ABERDEEN	13/0
F.O.R. HARROGATE	12/9
F.O.R. GLASGOW	12/0
F.O.R. STAFFS ...	11/6
F.O.R. SUSSEX (E.)	12/3
F.O.R. HERTS ...	11/9
F.O.R. SUSSEX ...	12/6
F.O.R. BRADFORD	12/3
F.O.R. BIRMINGHAM	—
F.O.R. GREENOCK	12/9
F.O.R. TEWKESBURY	11/6
F.O.R. BOLTON ...	12/0
F.O.R. MIDDLESBRO.	12/0
F.O.R. PARTRIDGE GREEN, SUSSEX	11/6
F.O.R. ESSEX ...	—
F.O.R. BIRKENHEAD	11/0

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	16/9	14/9
F.O.R. LIVERPOOL	17/0	14/9
F.O.R. LONDON	17/0	15/0
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/9	15/9
F.O.R. LEITH	16/3	14/3
F.O.R. LEICESTER	16/6	14/6
F.O.R. KING'S LYNN	17/0	14/9
F.O.R. BELFAST	18/0	16/9
F.O.R. BRISTOL	17/3	14/9
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	15/9
F.O.R. ABERDEEN	14/6	13/6
F.O.R. HARROGATE	17/6	15/3
F.O.R. GLASGOW	17/0	15/0
F.O.R. STAFFS	17/0	15/0
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. HERTS	16/6	14/3

CHICK FEEDS—Continued.

F.O.R. SUSSEX	**18/0**	**14/9**
F.O.R. BRADFORD	**17/6**	**15/9**
F.O.R. BIRMINGHAM	**18/0**	**16/0**
F.O.R. GREENOCK	**18/3**	**15/0**
F.O.R. TEWKESBURY	**18/3**	**16/3**
F.O.R. BOLTON	**17/0**	**15/3**
F.O.R. MIDDLESBROUGH	**17/6**	**16/3**
F.O.R. PARTRIDGE GREEN, SUSSEX	**17/3**	**15/3**
F.O.R. ESSEX	**17/9**	**15/9**
F.O.R. BIRKENHEAD	**16/9**	**14/9**

	Per Cwt.	
Fish Meal (Pure White)	**17/6**	**F.O.R. LONDON.**
,, ,, ,,	**17/6**	**F.O.R. BRISTOL.**
,, ,, ,,	**17/9**	**F.O.R. SWANSEA.**
,, ,, ,,	**17/9**	**F.O.R. TYNEMOUTH**
,, ,, ,,	**17/9**	**F.O.R. GRIMSBY.**
,, ,, ,,	**17/6**	**F.O.R. BRADFORD.**
Special Fish Meal	**16/9**	**F.O.R. MIDDLESBRO'.**
Meat Meal	**15/0**	**F.O.R. LONDON.**
Meat and Bone Meal	**13/6**	**F.O.R. LONDON.**

		Per Cwt.
MAIZE GRITS	**F.O.R. LONDON**	**11/0**
MAIZE GRITS	**F.O.R. IPSWICH**	**11/0**
S. G. OATS	**F.O.R. LONDON**	**13/0**
S. G. OATS	**F.O.R. SUSSEX**	**12/6**
S. G. OATS	**F.O.R. BRISTOL**	**12/9**
MAIZE GERM MEAL	**F.O.R. LONDON**	**8/9**
MAIZE GERM MEAL	**F.O.R. IPSWICH**	**8/9**
MEAT AND BONE MEAL	**Carriage Paid**	**15/3**
MEAT MEAL	**Carriage Paid**	**16/9**
ALFALFA	**F.O.R. LONDON**	**11/6**
,,	**F.O.R. BRISTOL**	**11/6**
BONE FLOUR	**F.O.R. LONDON**	**9/6**

It would be of very great assistance if members when ordering would always state station they wish goods despatched to, also their nearest depot.

DORCHESTER COUNTY TRIALS.

POULTRY INSTRUCTOR'S REPORT FOR SIXTH MONTH.

4th March to 31st March, 1926.

Weather getting better now. Only two days' rain, 15 days fine and sunny, seven days fine with cold wind, snow one day, three days fine and dull. On the coldest day of the month, with a biting wind, 23rd March, the birds put up the highest daily record, 225 eggs. Temperature at 7 a.m., 30 degrees.

Birds in good health end of period. Bird 29 has had treatment, but now back in pen. Bird 279 under treatment. No moulting during the period. Twenty-three birds have been broody, sixth month. 5,848 eggs have been laid and marketed during the sixth period.

Highest daily collection, 23rd March: 225 eggs. Special Grade, 107; first grade, 78; second grade, 39; non-scoring, 1.

Lowest daily collection, 13th March: 194 eggs. Special grade, 96; first grade, 56; second grade, 40; non-scoring, 2; 24,796 eggs since commencement of trials.

Monthly Ribbon Winners and Reserves, Sixth Period.—Mrs. I. M. Smith, Poole (R.I.R.), 162 pts.; J. P. Harding, Witchampton (R.I.R.), 150; C. A. Streatfield, Beaminster (W.L.), 168; C. A. Streatfield, Beaminster (W.L.), 162; W. J. Southwell, Hazelbury Bryan (R.I.R.), 156; W. J. Southwell, Hazlebury Bryan (R.I.R.), 144; R. Rudyard, West Lulworth (W.L.), 168; Miss B. M. Hall, Long Melford, Suffolk (W.L.), 162.

LEADING PENS IN EACH SECTION TO END OF SIXTH PERIOD.

Section 1.—N. V. Fowler, Bridport (W.W.), 4536 pts.; Mrs. Clarke, Steepleton (W.W.), 4049; Capt. Turton, Fayremead Farm Products, Ltd., Ensbury (W.W.), 4009; Capt. Turton, Fayremead Farm Products, Ltd., Ensbury (R.I.R.), 3992.

Section 2.—B. P. Leschallas, Charminster (W.L.), 4400 pts.; Capt. Turton, Fayremead Farm Products, Ltd., Ensbury (W.L.), 4327; Mrs. Trehane, Hampreston (W.L.), 4190; C. A. Streatfield, Beaminster (W.L.), 3568.

Section 3.—H. Barns, Hedge End, Blandford (W.W.), 4121 pts.; O. J. Collis, Buckland Newton (W.W.), 4088; H. J. Northover, Buckland Ripers (L.S.), 3980; Mrs. Neate, Closeworth Rectory (B.R.), 3844.

Section 4.—Miss Oddy, Milborne (W.L.), 3549 pts.; W. M. Millard, Twyford (W.L.), 3332; R. Runyard, West Lulworth (W.L.), 2970; Mrs. Roberts, Silton, Bourton (W.L.), 2887.

Correspondence.

MARKETING OF EGGS.

To the Editor of "Eggs."

Dear Sir,—Mr. W. R. Younger's letter to the "Times" of 21st April is interesting, and valuable, in so far as it calls attention to the fact that our present marketing arrangements leave much to be desired.

The position, however, appears to be that the Ministry of Agriculture have made an exhaustive study, and have published their report upon the whole subject. They have suggested that definite weight and quality should now be adopted, and have set forth in their report certain grades for consideration (Chapter VIII.), and they have also drawn up an outline of regulatory measures that may be found desirable, and have indicated three possible methods of procedure (Chapter XXIV.).

Having done all this they very reasonably suggest that, subject to the interests of the country as a whole, it is for the **producers and distributors,** through their representative Associations, to decide for themselves what is required, and how far, if at all, the intervention of the State is necessary or desirable.

The recent Marketing Conference, convened by the National Poultry Council, was the first step, and we now await developments.

Meanwhile, I do not see what more the **Ministry of Agriculture** can be expected to do.

The Ministry's Report is an invaluable book of reference, and should be in the hands of every poultry-keeper. The low price of Government publications (in this case, 1/6 post free) used to be accounted for by the fact that they were sold by weight, a subject in which many of us are interested at the present day!

Yours faithfully,
HUGH M. BAKER.

REARING FROM PULLETS.

To the Editor of "Eggs."

Dear Sir,—You asked a few months ago for members' experience in rearing from pullets. I had no time to reply then, also I wanted to see results this season.

I reared for four years from nothing but pullets and cockerels, buying eggs each year to get fresh cockerels from.

The first two seasons they did pretty well, but the third season not so well, and last year they hatched so badly I decided to get a fresh strain and also to keep a pen of hens.

Also, the chicks did not grow so well, though this may have been from shortage of green food, also mortality increased.

This year hatching has been good and fertility excellent, although the hens are the same birds whose eggs hatched badly last year.

The fertility of the hens has varied from 90 per cent. to 100 per cent. and hatchability 56 per cent. to 80 per cent., mostly between 75 and 80 per cent.—that is, of the eggs set, not of the fertiles only.

The new strain of pullets were not quite so fertile as the hens, but hatched better, the best being 94½ per cent. In the last hatch of my eggs, containing 41 hens' eggs and 70 pullets, there was only one clear, and that was a hen's, but there were five hens' eggs out at the second test and eight pullets', the hatch being 71.2/3 per cent.

But the second pen of pullets hatched badly, only they had a poor lot of cockerels.

I usually run a cockerel to eight birds, but this year I ran one to six.

Yours truly,
GERALD H. BROWN.

STOATS, HAWKS, MAGPIES, ETC.

To the Editor of "Eggs."

Dear Sir,—I think it would be useful if readers of "Eggs" would send up suggestions for getting rid of Stoats, Hawks, Magpies, etc.

Before the war this district was preserved for pheasants, and these pests were very little trouble, but now they are getting so bad it is becoming impossible to rear on free range.

As far as my own knowledge goes, Kestrels are quite easy to catch. Make a small dome-shaped cage of wire netting (¾ in. mesh), about 6 in. in diameter, place a small chicken under it, peg it down and set four pairs of clams round it, and shut all other small chickens in.

But sparrow hawks are terrors. I have caught one in the above arrangement, but as a rule they will not look at it. And I once caught one by setting a clam by a big chicken which I had found half-killed. The hawk was in the trap the next morning.

The keeper told me it was quite easy to catch a pair by placing the trap on the eggs in a nest. But you have to find the nest first, and it is probably on someone else's land. Also, it is too early for nests yet; then they usually take a good many chicks before one notices.

Stoats are easy if you can happen on a kill. In that case set three or four clams round it, and, better still, wait with a gun. They always come back to it, but then they usually kill 30—40 chicks straight off without stopping.

Last year the dog disturbed one after it had killed about two dozen, and drove it down a rabbit hole. I managed to poke it out, but we lost it, and it did not return; but later in the summer one took a lot of big chickens, and I could not catch it.

This season I have had two stoats. The first took 30 or 40 straight off, and it worked for ten days. Then the dog found it down a rabbit hole, and stopped all holes but one, and I put a clam down that and caught it. The second I caught in a rabbit run through a bank after a week. Between them I reckon they had about 70 chicks.

Magpies do not bother me much, although there are a lot about. It is as someone told me the other day: Magpies do not take chickens unless they once start.

Yours truly,
G. H. BROWN.

S. P. L. R. SCHEME.

To the Editor of "Eggs."

Dear Sir,—With reference to the proposed S.P L.R. Scheme, I should like to say I am entirely in agreement with what Mr. T. Barron has said. From a breeder's point of view I fail to see what fairer test we can have than the present day Laying Competition, where conditions are equal: the same for all competitors, and where the recording is done by some person quite unconcerned, and from a buyer's point of view, whether British or Foreign, what better guide could we have than the results of these tests?

Yours faithfully,
F. C. TOMLINSON.

To the Editor of "Eggs."

Dear Sir,—Much interesting opinion on the S.P.L.R. has been brought forward in your columns, the gist of which is that those in favour of the scheme are inclined to place its whole merit upon the expectation of a huge export business. Those against the scheme base their objections upon its degrading effect upon the morals of their competitors.

While it is no place of mine either to uphold or abuse the honesty of my fellow poultry-keepers, I think that the S.P.L.R. will render the industry an even greater service than merely turning us, one and all, into potential exporters.

The fact of having supervised trapnesting, etc., will encourage many to take a far greater personal interest in their individual birds than they do now. This in turn will cause a greater demand in this country for first-class stock, so that it will benefit such breeders as Mr. Barron, who so bitterly opposes the scheme at the present moment.

Any who feel with Mr. Barron that the Canadian R.O.P. is all wrong should take the opportunity of swelling the British attendance at the Ottawa Congress next year, and see what has been achieved for themselves.

I am, etc.,
J. LEWIS ROSEDALE.

AN EXPERIENCE.

To the Editor of "Eggs."

Dear Sir,—There may be beginners like myself who would be glad to hear of an experience I had with my three weeks' old chicks about a week ago. They were doing splendidly on your dry mash advised in "Eggs" of March 10th, when I noticed two or three of them standing about with closed eyes as if they were sleepy. I took no steps until several more began to do likewise, and then I called in an experienced poultry-keeping neighbour to have a look at them. After closely examining their eyes through a magnifying glass he suggested that there might be some irritant getting into them. I then told him that a few days previously I had given the mother hen a good dusting with "Izal" powder. He bathed each chick's eyes with a solution of permanganate of potash and there was a marked improvement immediately. I removed all litter containing the powder, bathed their eyes again twice the following day, and had no further trouble. One chick has, I think, lost the sight of one eye, and there is no doubt that if I had allowed another day to elapse they would have gone blind.

I always use "Izal" for my adult birds, and think it is an excellent disinfectant, but owing to the chicks sleeping under the hen, the powder got into their eyes, and also was stirred about when they scratched in the litter of their sleeping compartment. I have been told that Keating's powder would be a safer thing to use with chicks.

Yours faithfully,

GERALDINE BROOKER.

STOCK POULTRY LAYING RECORDS.

To the Editor of "Eggs."

Dear Mr. Newman,—I was most interested in Mr. P. Hedworth Foulkes' letter written in support of the Ministry of Agriculture's Poultry Laying Records Scheme, and published in your issue of April 7th. Those of us who are pedigreeing our poultry, and keeping careful records of our breeding and egg recording, will surely support a scheme that will give our work official recognition and increase our exports?

I agree with Mr. Tom Barron when he says that "the breeders of to-day stand on their reputations," but I cannot see how this recording scheme is going to spoil these reputations, as it should place the pedigree breeder on a sound footing, and bring more of those Colonial orders to this country.

The proposed scheme has undoubtedly been very carefully thought out, and to my mind it quite sound and workable. Are we going to back it up?

Personally I am willing to give the scheme my whole-hearted support.

Yours truly,

D. GOODWIN PREECE.

STOCK POULTRY LAYING RECORDS.

Sir,—As a small but painstaking poultry breeder may I be allowed the courtesy of your columns to comment on the excellent proposals of the Ministry of Agriculture?

I have studied the proposals published in February last with some care, and have also read with interest the letters from Mr. Foulkes and Mr. Barron.

In the first place we are constantly referred to our Canadian friends and their scheme. I think, Sir, that the Mother Country is quite capable of working out a scheme without being dragged at the coat tails of Canada, the U.S.A., Northern Ireland, or even Patagonia. What may be suitable for these transatlantic communities is not of necessity the best thing for us to do. I do not think, with Mr. Barron, that we need fear Canada or anyone.

Mr. Foulkes tells us we want some guarantee that the birds we buy from big breeders are what they are represented to be. I don't think this scheme will help us an atom. Furthermore, the scheme, as it stands now, awards certificates which are utterly valueless.

What breeders are willing to sell will be eggs or chicks from birds which have won certificates, and in this matter we are entirely dependent on the honesty of the supplier. Such breeders are extremely unlikely to sell the tested birds, at any rate until they are well on in their laying career.

Mr. Barron says the scheme will not check fraud. If the birds are sold with special marks of identification it will at any rate put a stop to the operations of one big poultry advertiser, or at any rate put some slight check on his activities. When the autumn demand for stock birds begins he is to be found represented at our local market with labels in his pocket to buy up culls in execution of his orders.

I fear only a prolonged visit to Wormwood Scrubbs will put any stopper on the man's enthusiasm (sic).

To come to the scheme itself.

In the first place it is far, far too costly, except for the privileged few. £5 minimum for the first 50 birds and 6d. per head afterwards for the next 450 makes the scheme prohibitive.

Furthermore, with the impending legislation for the marking of graded imported eggs, we have got to change our methods radically in order to eliminate the second grade eggs.

If a certificate is to be awarded for the hen which produces 225 first-grade eggs, I don't think I should complain, although I think the figure would be better put at 200, and say, 180 first grade eggs for a second-class certificate.

I quite appreciate the difficulty of breeders being asked to weigh every egg, but I should like to see the stipulation put in that if a bird laid more than 10 per cent. of second grade eggs, such bird should be disqualified.

Honestly carried out I fear this would spell disaster to the scheme, if we are to accept say the Bentley Laying Test figures as a criterion. Under such conditions I fear most of the big breeders in the country would come hopelessly to grief.

I think, Sir, it is a thousand pities that the Council of the S.P.B.A. did not go on with their original scheme for the registration of farms; the present scheme is doubtless the outcome of our original scheme, but, alas, jealousy among the various poultry societies strangled what looked like a healthy infant at birth.

Alternatively the scheme now before the National Poultry Council appears to me a far more feasable scheme, and surely the Ministry might be induced to co-operate with the N.P.C. and evolve something which would be a really reliable guide.

It is however, essential if the scheme is to have any permanent success that the "race for the second grade egg" has got to STOP. The awards, for example, at Bentley, for the first three months this year, were, in many cases, farcical.

The advantages of certificates being awarded for birds at Tests are obvious. Scoring is kept by quite impartial people. If the County Egg Laying Trials method of scoring for Special, First and Second Grade Eggs were adopted we should get a far better idea of the relative merits of different strains.

The expense, a most important point, would be very materially reduced, and this would bring in a far bigger range of breeders, and it would expose the worthlessness in the matter of first-grade eggs that many big advertisers are foisting on the public at prices which frankly I consider a positive outrage.

I quite appreciate that under the N.P.C. scheme we have extremely few safeguards that what we buy is what it represents itself to be; but after all, whatever the scheme adopted, the dishonest trader will find ways and means of going crooked. The great bulk of people in the poultry, or any other industry, are honest, and a man who can't run straight soon gets marked down.

I hope that in this matter, as also in the equally important matter of the grading, and possibly stamping of home laid eggs, we shall have some guidance from our Council, whose views on these two outstanding questions would be invaluable to us.

Thanking you for your courtesy,

Yours faithfully,

FRANCIS J. HEMELRYK.

Old Mill House, Partridge Green.

ROUP ON A CAPON FARM.

MELKSHAM LADY'S CLAIM FOR £600.

DEVIZES POULTRY FARMER SUED.

CROSS ACTIONS AT BATH COUNTY COURT.

A case remitted from Devizes was the subject of a special sitting of the County Court at Bath last week, His Honour Judge Gwynne-James presiding.

The plaintiff was Hugh Lynden Lemon, Lodge Poultry Farm, Poulshot, Devizes; and the defendant, Mrs. Beatrix Lucy Stewart Pollard, Manor Farm, Melksham, poultry farmer and dealer. The original claim was for £43 12s, 9d., of which the sum of £27 4s. 5d. had been paid into Court, leaving a sum of £16 8s. 4d. There was a counter-claim of £600.

Mr. F. J. Tucker, instructed by Messrs. Wansbrough and Co., Bristol, was for Mr Lemon, and Mr. E. H. C. Wethered, instructed by Messrs. E. J. White and Co., Bath, for Mrs. Pollard.

His Honour, after reading the particulars, said they would first try the liability, and leave the question of damages until afterwards.

Mr. Wethered said this was a claim by Mr. Lemon which fell on the under two heads with only one of which his Honour was concerned. The total claim was £43 12s. 9d. £23 16s. 9d. was the price of two breeding pens, seven hurdles, and fourteen and half dozen eggs, purchased by Mrs. Pollard on August 1st. The amount was not in dispute, and had been paid in full into Court. That left £19 16s. for 186 cockerels which had been purchased from Mr. Lemon, at 2s. 6d. for the bigger birds and 2s. for the smaller birds. The amount was not in dispute, but he claims there had been a breach of warranty on the part of Mr. Lemon, the vendor, according to Section 53 of the Sale of Goods Act, and that he (Mr. Wethered, for Mrs. Pollard) was entitled to set off the £19 16s. against the damages sustained.

Mrs. Pollard was the widow of Dr. Pollard, who formerly practised in the neighbourhood of Melksham. She had been residing for some time with the Hon. Paul Methuen, who knew the defendant, Lemon, a farmer and breeder of poultry near Devizes. In consequence of Mr. Methuen's introduction on July 23rd, 1925, Mrs. Pollard went to Devizes to see Mr. Lemon with a view to purchasing some cockerels. Mrs. Pollard was working a poultry farm at Beanacre Farm, Melksham. The particular form of poultry farming was one which was lucrative if carried on in the right way. What she wanted to do was to purchase cockerels for caponising, which sold later at 2s. 8d. to 3s. per lb. For that purpose she required birds that were very thick and quite young. At Mr. Lemon's farm she saw his manager, Mr. Lye, and explained what she wanted. He said he understood the caponising business, as he had had experience in Street. Lye said he did not know how many birds he could supply, but he could certainly supply one hundred, and possibly another 100. She saw some sixty or seventy birds in a pen, but did not examine them. Lye said he would have to look the birds out, and let Mrs. Pollard know in the course of a week how many he could supply. It was arranged that for the bigger birds she should pay 2s. 6d. and for the smaller birds 2s., and Lye undertook that the birds would be fit for caponising after twenty-four hours' starvation before the operation.

Later Lye sent a boy to her with a message that he could supply 180 birds, and between July 28th and 31st he supplied 186 cockerels. When the first lot of birds arrived on July 28th she noticed that they had a most unpleasant smell, and when the second lot came they, too, had a very unpleasant smell. She was not at that time acquainted with Roup, one of the characteristics of which was a most disagreeable smell. On the day after delivery two birds died, one the next day, and two on the third day, making five deaths in three days. From August 1st to 12th twenty more birds were picked out as sick. On August 8th she went and saw Mr. Lemon. She sent some of the dead birds to the Ministry of Agriculture Veterinary Station, and it was then found they were suffering from Roup, and also from intestinal round worm parasites. After the losses she (Mrs. Pollard) commenced to try and identify the disease by looking up poultry books on the subject. Mrs. Pollard admitted buying some birds from a Mr. Pocock, a dealer, who about the day previously had purchased them in open market at Devizes. She also purchased another six birds from a Mr. Skuse on July 23rd.

The disease (Roup) spread right through the farm. Altogether from that time 103 birds out of 160 had died, and a number since the counter-claim was drawn up. Those that did not die were enormously reduced in quality. Birds after Roup might recover, but they were not fit for capons and were very poor birds.

The Judge (to Mr. Tucker, acting for Mr. Lemon). Do you dispute the fact?

Mr. Tucker said he did not dispute, as a matter of fact, that the birds were brought from Mr. Lemon, and that the birds on the farm at some subsequent date contracted Roup.

The Judge: But you dispute the fact that the birds did contract Roup before they were sold by your client?

Mr. Tucker: Yes.

Mr. Wethered submitted that there was an express warranty that the birds were in a perfectly sound condition for caponising.

The Judge (to Mr. Tucker): Had these birds been bred by your client or bought by him?

Mr. Tucker: Bred.

Mrs. Pollard then gave evidence. Being in a condition of temporary lameness, she was accommodated with a chair on the bench near the Judge.

In answer to Mrs. Pollard, she said she had been carrying on a poultry farm about a year and a half. That was her first deal with Mr. Lemon. She had previously bought birds from Messrs. Pocock and Skuse, but from nobody else. She had about three hundred birds which she had bought or bred. The arrangement made with Lye, the manager, was that the birds must be in perfect condition, and from 8 to 12 weeks old, according to breed. She wanted to feed them to sell to London hotels, and told Lye so. After the birds from Lye were brought on the farm they never came into contact with any other birds there. Soon after they came on the place—on August 5th—she noticed one of the birds had its head very swollen, with its eyes staring out, and cheese-like matter exuding from them. That particular bird had a horrible smell. She looked at the poultry book later, and came to the conclusion that the bird was suffering from Roup. She treated it, but it died; that particular bird had a horrible smell. When she saw Mr. Lemon on August 8th she said to him that Australorps (one of the breeds of poultry she had bought) had a funny smell.

At this stage Mrs. Pollard was overcome with illness, and the Judge suspended the Court for a quarter of an hour.

Resuming, Mrs. Pollard said that on August 15th Mr. Lemon came to see her, and she told him she thought the birds were suffering from Roup. He examined the bird with the swollen head which she showed him, and said it was not a case of Roup.

Continued on Page 292.

CLITHEROE AND DISTRICT POULTRY SOCIETY.

Sixth and Final Monthly Report.

Figures are Eggs and Points respectively.

In the first 12 weeks eggs over 2ozs. receive 9 points; 1¾ozs. to 2ozs., 8 points; under 1¾ozs., 6 points. In the second 12 weeks, over 2ozs., 7 points; 2ozs., 6 points; under 2ozs., 4 points.

Heavy Breeds.—J. R. Jackson, Downham (W.W.), 122, 960; P. Warren, Entwistle (R.I.R.), 129, 949; L. Infanger, Grindleton (W.W.), 118, 884; J. H. and W. Brayshaw, Keighley (W.W.), 118, 871; A. Snowden, Crosshill (W.W.), 111, 865; W. H. Bradshaw, Preesall (W.W.), 116, 828; W. Boulton, Stoke-on-Trent (L.S.), 115, 827; T. Dobson, Inglewhite (B.O.), 107, 820; J. H. Heap, Wilmslow (W.W.), 112, 820; F. C. Tomlinson, Sleaford (L.S.), 113, 818.

Light Breeds.—T. Bickerstaffe, Clitheroe (W.L.), 118, 846; Miss Greenwood, Worston (W.L.), 114, 846; P. Warren, Entwistle (W.L.), 113, 828; R. Beesley, Lytham (W.L.), 103, 756; Major Aspinall, Pendleton (W.L.), 94, 684; C. F. Jowett and Son, Scarborough (W.L.), 93, 671; J. R. Jackson, Downham (B.L.), 79, 635; W. Parker, Burton-on-Trent (W.L.), 83, 615; J. Wilson, West Bradford (W.L.), 87, 613; Mrs. and Mr. F. J. McMillan, Ulster (B.L.), 85, 607.

Total eggs (177 days) 11, 657; 165 birds; twelve birds dead.

MIDLAND LAYING TEST.

Fifth Month (140 days) ended March 21st, 1926.

The leading pens in each section are as follows:—

White Leghorns.—Wilson Beattie (Northampton), 318 pts.; J. Hampson (Ainsworth), 300; A. Pickard (Chilvers Coton), 303.

White Wyandottes.—F. E. Townson (St. Albans), 345 pts.; Mr. Seed (Longridge), 329; Rev. W. H. Blight (Chard), 331.

Rhode Island Reds.—Miss E. Gibson (Wolverhampton, 318 pts.; G. T. Warr (Alvechurch, 314; F. and T. Lumb (Hebden Bridge), 300.

Light Sussex.—F. R. Welch (Bewdley), 293 pts.; Wilson Beattie (Northampton) (W.W.), 244; Capt. A. Munro Spencer (Hants), 227.

A.O.V. Heavy Breed—T. Brooksbank (Hedon) (B.R.), 217 pts.; J. Martin (Bolton) (B.Orp.), 209; H. Hobson (Blackpool) (B.R.), 204.

SINGLE-BIRD SECTION.

Light Breed.—H. Armitage (Golcar), (W.L.), 72 pts.; Mrs. E. Fort (Williton) (An.), 73; Mrs. W. Sershall (Winson Green), B.L.); 66.

Heavy Breed.—Mrs. E. Nicholls (Alvechurch) (W.W.), 86 pts.; C. W. Cracknell (King's Norton), (W.W.), 84; B. Allbutt (Bromsgrove) (W.W.), 82.

NORTHERN UTILITY POULTRY SOCIETY.

LAYING COMPETITION, 1925-26.

Fifth Report—February 21st to March 20th, 1926.

The weather during this period has been typical for the season—gales of snow and sleet, with a day of spring in between, the last few days being mainly fine and frosty, except for snow showers.

None of the birds have been ill, although one met with an accident, and had to be killed, this being the only loss for this month.

The yield of eggs has been very good, only five birds failing to be contributors this month. Two of these can be described as passengers having yet to lay the first egg, these being Nos. 340 and 345. Very little broodiness has been noted.

DUCK SECTION.

These birds have done considerably better this month notwithstanding the changeability of the weather; but any change from wet and open weather postpones production almost immediately. One duck has died from liver disease; all others are in good health.

EGG PRODUCTION OF LEADING PENS.

Section No. 1. Championship.—Leslie Williams (W.W.), 719 pts.; Messrs. Longworth Bros. (W.L.), 706.

Section No. 2. White Leghorns.—Robert H. Fryers, 444 pts.; F. C. Tomlinson, 396; Capt. C. M. Leatham, 380; William Dugdale, 357.

Section No. 3. White Wyandottes.—Bolton and Gardner, 440 pts.; R. H. Aspden, 433; Mrs. G. H. Hill ,410; G. H. Rayner, 400.

Section No. 4. Any Other Variety (Non-Sitting).—K. A. Crawford (W. la-B.), 336 pts.; Robert A. Fawsett (B.L.), 298; Arthur White (B.L.), 289; J. Ashworth (B.L.), 237.

Section No 5. Any Other Variety (Sitting).—E. A. Tingle and Son (R.I.R.), 443 pts.; Gettern Modern Poultry Farm (B.R.), 424; Gilbert A. Leonard (B.R.), 394; Harold Turner (R I.R.), 374.

Section No. 6. Small Breeders.—T. Lindley, 298 pts.

Section No. 7. Cross-breds.—Mrs. Clara Egar, 292 pts.

Section No. 8. Two Birds.—Mrs. E. McKeown (W.W.), 170 pts.; Misses Leason (W.W.), 143; Henry Purves (W.W.), 133; Andrew Vasey (W.L.), 126.

Section No. 9. Single Birds.—R. A. and A. M. Johnson (W.W.), 94 pts.; Crossgar Pedigree U.P. Farm (R.I.R.), 90; W. B. Grimshaw (W.L.), 79; Miss R. K. Tallis (W.W.), 77.

Section No. 10. Local Section.—Ernest Jackson (W.W.), 302 pts.; Joseph Trickett (W.L.), 267.

Section No. 11. Ducks.—G. H. H. Simmons (K.-C.), 208 pts.; Wilson Beattie (K.-C.), 173; R. A. and A. M. Johnson (W.R.), 159; Fred Gardner (A.R.), 143.

Section No. 12. Single Ducks.—G. H. H. Simmons (K.-C.), 82 pts.; R. A. and A. M. Johnson (K.-C.), 56; Mr. and Miss Streatfield (K.-C.), 48; A. Denby Wilkinson (K.-C.) ,42.

LONDON MARKET ADVICE TABLE.

By A. V. CLARKSON.

MAY, 1926.

From now onwards poultry farmers will be considering the disposal of their surplus Cockerels and the Old Birds from their breeding pens.

There are so many different classes and qualities of cockerels that the best advice the writer can offer is, that when writing to his salesman, the sender should tell him exactly the breed, size and number of birds which he wishes to dispose of. This will enable the salesman to give him an approximate idea of the realisation price of his birds.

Of course, the Poussin trade will steadily decline, because of the number of 1½ lbs. chicken which are coming on to the market, so that it would really be better to hold all cockerels until they scale 1½ lbs. This remark does not apply to Leghorn cockerels, because even as tiny birds scaling ½ lb. to ¾ lb. they only realise a few pence each alive. When fed on to 1½ lbs. or 2 lbs. they do not realise as much as other breeds of chicken.

If the producer has a large number of cockerels, and cannot dispose of them locally, of course there is no alternative than to send them up alive.

If the producer has a large number of cockerels, and cannot dispose of them locally, of course there is no alternative than to send them up alive.

With regard to Spring Chicken scaling 1½ lbs. or over, it is for the sender's discretion whether he sends alive or dead. If he sends alive, the salesman can kill and pluck them for him at a nominal charge, and, if sending dead, he must be sure to thoroughly cool his birds before packing them, and must then be sure and use a well-ventilated crate or box to pack them in. These two factors are great safeguards against the birds turning green during transit, because if we are fortunate enough to get any warm weather (and at the present moment it does not look a bit like it) it is surprising how quickly poultry will turn when packed. It should be borne in mind that for a chicken to realise top price for its particular class of bird, it is essential that it spends at least a fortnight in a fattening pen. This fortnight makes all the difference in the quality and appearance of the bird, and it must be borne in mind that poultry, like many other things, is sold to a great extent on appearance.

HENS.—Hens should be sent alive. When sending they should be graded according to size and colour as much as possible, and the Light Breeds should be separated from the Heavy Breeds.

OLD COCKS.—Old cocks should be sent alive, as it is practically impossible to dispose of them dead.

OLD DUCKS AND DRAKES.—These should be sent alive, and would benefit by a period in the fattening pen.

DUCKLING.—Duckling are in good demand but this demand is only for a white bird scaling 4½ lbs. or over. These should be sent killed and clean plucked. To those who have no experience of killing and plucking ducks, the writer would say that it is essential that the birds be allowed to calm down after they have been caught. The reason for this is that a bird which is excited will pluck out a very bad colour, and such a bird would not sell to advantage.

EGGS.—New-laid eggs are always in demand, but it is essential that they be sent fresh. Senders using their own boxes should be sure that their name and address is written inside the lid. With regard to preserved eggs, it would be to the advantage of the producer to find his own retail customer for these, when he should be able to do better than by placing them on the open market, and this fact should be borne in mind BEFORE the eggs are preserved.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

KEIGHLEY AND DISTRICT BRANCH.

A VISIT TO MR. HAMNETT'S FARM.

Mrs. Wilson, Secretary of the above branch, asks me to notify members who are desirous of visiting Mr. Hamnett's farm at Blackpool on Whit-Tuesday, May 25th, that their names should be sent to her at Minorca Farm, Denholme, Bradford, on or before May 5th. The Monthly Meeting of the branch will be held on that date at the usual time and place, and a "resume" of the business transacted by the Committee during the last six months will be given. A good attendance is desired.

HERTS COUNTY EGG LAYING TRIALS.

Report to end of Sixth Period—4th March—31st March, 1926.

Figures are Eggs and Points respectively.

SECTION 1. Open to any breeder in the county.

Division A. Any Light Breed. Six Pullets.—Mrs. E. Charles (W.L.), 638, 5106; Mr. Hedley Morgan (W.L.), 620, 4853; The Hoo Poultry Farm (W.L.), 493, 4126.

Division B. Any Heavy Breed. Six Pullets.—Dr. Douglass (W.W.), 696, 5790; Mr. E. Holloway (R.I.R.), 596, 4816; Miss Harrison Bell (Bf. R.), 570, 4554.

SECTION 2. Open to Poultry-keepers whose total laying stock does not exceed 150 head.

Division A. Any Light Breed. Three Pullets.—Dr. Douglass (W.L.), 290, 2466; Mr J. Burnett (B.L.), 189, 1396.

Division B. Any Heavy Breed. Three Pullets.—Mrs. Walrond (W.W.), 316, 2516; Mr. W. Lloyd (W.W.), 298, 2428

THE STANDARDS ENQUIRY COMMITTEE.

Dear Sir,—In issuing to the Press the appended suggestions, I would point out that the Standards Enquiry Committee is doing what its name implies—conducting an enquiry into the differences between ordinary standards and the requirements of the utilitarian.

To make any headway at all, some weights and definitions must be put forward for discussion, and full and free criticism is invited.

Rome was not built in a day, and it is rarely possible to come to a common agreement on any subject without the exercise of patience, and, may I add, forbearance. Yours truly,

WILLIAM RICE.

THE STANDARDS ENQUIRY COMMITTEE.

This met in Room 43, Midland Grand Hotel, on April 8th, 1926. Present: Mr. Lawrence Ardern (in the chair), Messrs. J. Wrennall, J. Whalley, Miss Maddison, W. W. Broomhead, and William Rice.

The minutes of the meeting on February 11th were confirmed. Apologies were to hand from Mr. Alderson Smith (ill), Captain Peirson Webber, Mr. Tom Newman, and Mr. Percy Wainwright. Replies from various breed societies and fanciers on the suggested weights were read. The Lancashire Federation approved "en bloc." Certain fanciers, while approving the lower weights for their own breeds, thought the reduction must be done gradually, step by step.

SUMMARY OF REPLIES .

Weights are minimum and maximum weights in lbs. of cock, hen, cockerel, and pullet respectively. Ancona, Bresse, Campine, Coveney White, Leghorn, Buttercup, Flowerbird, 5—6; 4—5; 4—5; 3½—4½. Ancona Club wants about the same. Black Leghorn prefers heavier weights, but would fall into line with White Leghorn Club. Blue Leghorn referred to annual meeting. Exchequer Leghorn and British Black Leghorn want ½ lb. more weight on pullet, 1 lb. more on others. British Bresse agrees. White Bresse desires heavier weights. Campine leaves matter open at present.

Barnevelder, Wyandotte, 6—7½; 5—6; 5½—6½; 4½—5½. White Wyandotte, coming before Committee. Gold and Silver Wyandotte decides against.

Croad Langshan: 7—9; 5½—7; 6—7½; 5—6. Committee will be asked.

Marsh Daisies: 5½—6½; 4½—5½; 4½—5½; 4—5. Club agrees.

Minorca, Redcap: 5½—6½; 4½—5½; 5—6; 4—5. British Minorca asks if for utility birds. London Minorca will ask Committee. Western Minorca waiting events. Utility Minorca agrees. Redcap agrees.

Orpington, Plymouth Rocks: 7—8½; 5—6½; 5½—7; 4½—6. White Orpington Club asking Committee. Australorp agrees. Plymouth Rock Society asking Committee.

Rhode Island Red: 6½—8; 5—6½; 5½—7; 4½—5½. Welsh R.I.R. agrees. British R.I.R. asking Committee.

Sussex: 7½—9; 6—7½; 6½—8; 5—6½. Buff Sussex agrees. Sussex Club does not agree.

After a lengthy discussion it was proposed by Mr. J. Wrennalls, and seconded by Miss Maddison: That for judging birds in utility classes the following scale of points, with explanatory definitions, slightly modified from that drawn up by the Lancashire Federation, be recommended for all breeds.

Scale of Points (Male and Female).

1. Breed type and characteristics, including colour and markings	30
2. Head and adjuncts	20
3. All-round texture	25
4. Condition	10
5. All-round capacity	15
	100

Definitions.

1. To include: Breed type, size, colour, legs (of medium length), feet and toes.

2. To include: Skull, beak, eye, comb, face, earlobes, wattles and neck.

3. To include: Fine quality of bone, flesh, feather and leg scales, soft and silky handling.

4. To include: Good health, activity, cleanliness, and good plumage.

5. To include: Width, length of back and depth of body.

Utility birds to have the following points:—

HEAD.—Skull: Characteristic of the breed. Beak: Medium size, colour for breed. Eye: Bold, prominent, large and bright, colour for breed, eyebrows never frowning (beetle brows permitted in Croads). Comb: Single or Rose as breed requires. Single to be medium for breed, fine in texture, evenly serrated. Rose to be medium for breed, fine in texture, firm and evenly set, low, square fronted, gradually tapering toward the back and terminating in a well-defined spike (leader), which should follow the curve of neck without upward tendency (except in Rosecomb Campines, Rosecomb Leghorns, where the leader should extend straight out and not follow line of head), top covered with small coral-like points of even height, and free from hollows. Face: Clean, smooth and free from wrinkles. Earlobes: Characteristic of breed in shape and colour, medium in size, free from wrinkles, fine in texture. Wattles: Fine in texture, medium size, free from wrinkles.

NECK.—Fine and well balanced.

BODY.—Broad in front, true to type for breed, fine in texture throughout. Breast: Breastbone straight, not too fine or short, proportionate to back. Back: Broad, narrowing slightly to saddle. Characteristic of breed. Tail: Characteristic of breed. Pubic Bones (Vent): Straight, medium in length, fine in texture, always supple.

LEGS.—Well apart and proportioned to ensure perfect balance colour, and length characteristic of breed. Loss of pigment due to heavy laying to be allowed for. Shanks: Shank bone not coarse, scales small and tight, allowing room for tendons. Claws: Well spread, characteristic for breed in number of toes, which should be medium in length.

PLUMAGE.—Characteristic for breed in markings, tight in feather, avoiding excessive fluff.

TEXTURE.—Being fine quality of bone, flesh, feather, horn, skin and wattles. Handling soft and silky to the touch.

CONDITION.—Being taken to mean a bird clean, healthy, active and vigorous.

WILLIAM RICE, Hon. Secretary,
Standards Enquiry Committee.
Three Ludgate Broadway, London, E.C.4.

APPLICANTS FOR MEMBERSHIP, S.P.B.A.

Moore, F., 124, Marlowes, Hemel Hempstead, Herts.
Lobnitz, Lady L., Ross Hall, Crookston, Renfrewshire.
Davis, John, Lowfields, Kirkby Lonsdale, Westmorland.
Barwood, E. H., The Grove, Forncett St. Peter, Norfolk.
Wilson E. D., Newlands, Alvechurch, Birmingham.
Gemmill, D., Bilsdens Ongar, Essex.
Gray, F. C., Layer-de-la-Haye, Nr. Colchester, Essex.
Russell, Miss M., Barton Court, Canterbury.
Gisborne, H, "The Larches," Flawforth Lane, Ruddington, Notts.
Jones, John H., 36, Heaviley Grove, Horwich, Nr. Bolton, Lancs.
Folden, Hans, Ostbanegade 11, Copenhagen, Denmark.
Philipps, Lady, Llanstephan House, Boughrood, Radnorshire.
Grant, Major J. P., Hayfield, Lerwick, Shetland.
Park, George, Swarthmoor Hall, Ulverston.
Taylor, Thomas, 30, Summerford Terrace, Whitebirk, Blackburn, Lancs.

Totman, A. E. T., Patchendon Farm, Stapleford, Hertford, Herts.
Gilroy, Miss E. G. Ballumbie, By Dundee.
Greatwich, H. J. L., The Larches Cottage, Foley Park, Kidderminster.

Dunsby, Lawrence, "Claremont," Hurn Way, Christchurch, Hants.
Alexander, Mrs. S., Brant Broughton House, Newark.
Osborne, Miss D. F., "Fellholme," Gerrard's Cross.
Morgan, G. E., c/o Mrs. Beckett, Rush Lane, Longslow, Market Drayton, Salop.

Ffooks, Mrs. W. A., Tidwell, Sherborne, Dorset.
Williams, I. P., Bryn-haf, Tresaith Newcastle Emlyn.
Heddon, Miss E. J., Maer, Bude, Cornwall.
Howell, Mrs., Monkston, Ladybank.
Farr, Mrs. L. R., Barton Hill Farm, Nr. Dunstable, Beds.
Schofield F. C., Rose Cottage, Pencombe, Worcester.
Lee, R. F., Willicote House, Campden Road, Stratford-on-Avon.
Liddon, Major M. R., Northmoor, Minehead, Somerset.
Luckraft, Rev. L. C., The Rectory, Burgh Castle, Gt. Yarmouth.
Alexander, J. T., Balmule P. Farm, Balmule, Dunfermline, Fifeshire, Scotland.

ROUP ON CAPON FARM.

Continued from Page 289.

Witness said, Are you quite sure? and he answered, "I ought to know," and he assured her it was a summer cold. Witness said, "Thank God." She then asked Mr. Lemon if she might mix the birds she had from him with her own for caponising purposes. He said, "Yes." Witness took him round the yard, and he remarked that some of the birds (which she had had from him) looked weedy. In consequence of what he told her she, on the following day, mixed the birds bought from him with the rest. Lemon's birds continued to die, but it was about twelve days after the birds were mixed before she noticed that some of the other fowls became ill.

Eventually witness communicated with Mr. Cockeram, then poultry instructor to the Wilts County Council, and he visited the farm on August 20th, who did not say anything about roup on that day. He visited Mrs. Pollard's place again a few days later, and a bird seen with roup was destroyed, evidently to prevent risk of possible infection. Subsequently she sent birds to the Ministry of Agriculture Veterinary Department for post-mortem report. She received a series of reports signed by a Mr. Reid from September 4th onwards. Mr. Hooley, an expert connected with "Poultry World," arrived on October 6th to inspect the place. Up to the date these proceedings were filed 105 of Lemon's birds had died, and a number had died since.

POINTS FROM THE CROSS-EXAMINATION.

Mr. Tucker, on behalf of Mr. Lemon, did not dispute the fact the birds had roup, but that it had been contracted on Mrs. Pollard's farm. Mrs. Pollard had had about eighteen months poultry farming experience. This was her first deal with Mr. Lemon. The price she paid for the cockerel chicks purchased from Mr. Lemon were 2s. for small birds (La Bresse) and 2s. 6d. for larger birds (Australorps mainly). She usually starved them 48 hours before operating. On the day Mrs. Pollard decided to have Mr. Lemon's birds, she sent a lad named Tabor with an open cart, this lad came back and reported; she then sent him back with another lad named Crook, who brought back the first lot of cockerels, which Mrs. Pollard helped to unload. It was said the evening was very wet, rain pouring incessantly. It was against Mr. Lemon's wish for the birds to be removed in such weather. On arrival Mrs. Pollard said they smelled badly, and were placed in a place by themselves.

The day after delivery two died, next day another died, and following day another two died. On or about August 7th Mrs. Pollard noticed something wrong, a bird had a swollen head and cheese-like matter coming out of the eye socket, and it had a horrible smell. She looked up a book, and came to the conclusion it was Roup.

The Judge asked Mrs. Pollard what she did. She told him she treated the bird by washing its head; the bird eventually died.

On August 4th she wrote to Mr. Lemon. (Copy of the letter was produced, but nothing was said about disease.)

On August the 8th she journeyed to Mr. Lemon's farm and bought some poultry houses, hurdles, and eggs for eating from him. She did mention that some of the birds died.

12.15 a.m. Mrs. Pollard went faint, and Judge adjourned the case for fifteen minutes, during which Judge invited Council to meet again in his private room.

It was thought possible a settlement might be arrived at by each side paying its own costs.

Mr. Lemon's Counsel left the matter with Mr. Lemon whether or not he (Mr. Lemon) would consider such, and on the advice of expert witnesses and many poultry farmers present he (Mr. Lemon) acted on the suggestions to see the case fully tried out, and to arrive at a definite decision. No settlement was therefore arrived at, and the trial was resumed at 1.45 p.m.

The Judge wrote down on a paper a question to Mr. Tucker, which he said Mr. Tucker need not reply to unless he wished, but if he did he would read the question to the whole Court.

Mr. Tucker, after reading, emphatically said "No."

The question was: If Mr. Tucker's case was that—if any of his client's birds (Mr. Lemon) suffered from roup prior to July 28th or fourteenth day after. The answer was, No.

Mr. Tucker cross-examined Mrs. Pollard, who said she knew nothing about roup. Asked if out of five birds that died shortly after the 31st, three of them were capons and two La Bresse? She said, "No."

Mr. Pollard, continuing (under cross-examination), said five of Mr. Lemon's birds died within three days of receipt of birds, i.e., August 1st-3rd.

In her diary there were no entries whatever prior to August 7th, then up to August 14th entries for five of Mr. Lemon's birds (capons) which died.

On August 6th (first interview with Mr. Lemon) she mentioned five birds had died August 1st-3rd, but did not attach much importance to these losses. She affirmed that Mr. Lemon said there was no smell in the bird they picked up, and that it was not roup. She did not remember whether he advised her that colds neglected would develop into roup. He did not suggest isolation or killing. She admitted being nervous of roup, and denied that Mr. Lemon offered to take all his birds back. There was no complaint made from August 15th to September 1st to anybody. Mr. Cockeram, the Wilts Poultry Instructor, came on August 28th, but did not recognise roup in any of the birds definitely. On the following day he returned according to promise and detected roup on examination. Mrs. Pollard recognised a fourteen days' quarantine period for all newly-purchased stock, and always observed it, segregating every batch.

With regard to her dealings with Mr. Lye, manager to Mr. Lemon, Mrs. Pollard refuted the suggestion that he told her that the birds were over ten weeks old at the time of purchase. She also denied that the birds were received in a wet condition, or that her boy reported any warning from Mr. Lemon as to the night being unfit for removing birds in crates on an open cart. She herself noticed the terrible smell from the birds on arrival.

Later Mrs. Pollard stated that the operation of caponising was not tricky or risky, but neat to perform. She only lost about two per cent. After the operation she dressed with iodine and gave no further subsequent treatment. The birds on receipt were placed in an open barn surrounded by wire netting. The deaths of capons she attributed to the poor condition of the birds at the time of operation.

Mr. H. A. Reid, M.R.C.V.S., of the Pathological Veterinary Department of the Ministry of Agriculture, then gave evidence. He described roup as a specific infectious disease, and that birds must be exposed to roup infection to contract roup. Nasal Catarrh may be a symptom of roup. The period of incubation up to definite recognisable symptoms was from three to twelve days. Swollen head and yellow discharge are signs of roup. Death may suddenly result by invasion of Diphtheritic matter into the respiratory tract any time after the 3—12 days' period. Birds must be exposed to outside infection to develop roup, may be from other birds or outside infection. Germs may be carried by birds, rats, etc., but this is a debatable point—in fact, not probable.

Mr. Reid, in his experience had always found a previous history in roup cases. Roup was attributed to an ultra-microscopic virus, like foot and mouth disease. We don't know how they are carried. Bad colds would predispose to roup. The smell of the beak, canker in mouth, swollen head and discharge from eye, also presence of false membranes in mouth, eruptions on comb and wattles are all signs of roup. Running nostrils are symptoms of both roup and nasal catarrh. The symptoms may not all be present at the same time. Smell does not indicate roup without doubt, but is highly significant. The swelling arises from the necrotic or diphtheritic tissue. Birds would have developed definite roup symptoms 5—6 days after purchase. These would be obvious to anyone knowing anything about roup.

Mr. Reid would not expect only three to be ill out of 180 birds fourteen days after purchase. There were 250 birds on July 31st. 180 or so were sent away, and on arrival stated to be reeking with roupy smell, 60 were left behind, and not one developed roup. Witness admitted that this state would be remarkable. The Judge suggested it would be a miracle. Witness confessed that he did not know how long it would take to clean the land after an attack. He considered that birds recovered from roup were quite fit for table.

Mr. Reid, M.R.C.V.S., giving evidence, affirmed that there was no connection between round worm and roup, although birds suffering from round worms are more susceptible to roup than others due to lower condition and vitality. He said roup is a specific infectious disease.

Mr. Reid said that birds must be exposed to roup infection in order to contract roup, it could not develop without. (Considerable astonishment from poultry farmers present in Court.)

Mr. Reid said roup belonged to the same group as foot and mouth disease.

Mr. Pocock (poultry dealer) admitted selling birds to Mrs. Pollard, and that those delivered in July were bought the day previous in the market at Devizes. All birds supplied by him to Mrs. Pollard were in perfect condition and quite healthy.

The Court then adjourned until Friday next 10.15 a.m.

FOOD PURCHASE SCHEME.

SPECIAL OFFER.—Readers' attention is drawn to the special Prices of FISH MEAL which we are now able to put on rail at GRIMSBY and TYNEMOUTH at 16/6 per cwt. in five-cwt. parcels and upwards. Under five cwts. an additional 9d. per cwt. should be added.

UNEXTRACTED DRIED YEAST.—We are now able to offer five-cwt. parcels and upwards of this at 20/- per cwt. F.O.R., with the usual advance in prices for cwt. lots.

WILL ——?

Mr. Norman Preston, who contributed a letter on the "Marketing of Eggs" to these columns in the issue of April 21st, kindly forward us his address, as we have had the misfortune to mislay it?

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 23rd APRIL, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is sparingly offered, and with a good demand is dearer at all markets, the average quotation being 12s. 9d. per cwt., as against 12s. 5d. last week and 12s. a fortnight ago. Imported wheat also sells at higher figures, No. 1 Manitoba averaging 14s. 10d. per cwt., an increase of 6d. per cwt. on the week. Demand for feeding barley has varied at the different centres but recent quotations are fully maintained, home-grown samples being 3d. per cwt. dearer at London and Bristol. English oats are in small supply, and realise more money at most markets, increases ranging from 2d to 8d. per cwt. being recorded on the week. Foreign are in fair demand and slightly dearer. A moderate trade is passing for maize at fully recent quotations.

Milling offals and meals are in fairly good request, and any price changes are against buyers. Coarse middlings are dearer and average about £7 4s. per ton, as compared with £7 last week, but bran sells at late rates, except at Liverpool, where an increase of 5s. per ton is recorded. Linseed cake meets a variable trade at about recent prices, while cotton seed cake is from 2s. 6d. to 5s. per ton dearer at most centres.

MILLERS' OFFALS.—Bran (British): Bristol, £6 17s; Hull, £6 7s; Liverpool, £7; London, £6 7s. Broad Bran: Hull, £7 17s; London, £7 15s. Middlings:—Fine (Imported): London, £7 15s; Coarse (British): Bristol, £7 15s; Hull, £7 5s; Liverpool, £7; London, £6 17s. Pollards (Imported): Bristol, £6; Hull, £5 10s; Liverpool, £5 7s; London, £5 17s. Rice Bran: Bristol, £6 15s; Liverpool, £6 10s; London, £6. MEAL.—Barley Meal: Bristol, £9 15s; Hull, £9 7s; London, £9 10s. Maize Meal: Bristol, £9 15s; Hull, £8 15s; Liverpool, £9; London, £8 15s. Maize Meal (S. African): Bristol, £8 7s; Hull, £8 5s; Liverpool, £8; London, £8. Maize Germ Meal: Hull, £8 5s; London, £8. Maize Gluten Feed: Bristol, £10 5s; London, £9 5s. Maize Cooked Flaked: Hull, £10 10s; Liverpool, £10 7s; London, £10 15s. Locust Bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9 5s. Bean Meal: Bristol, £13; Hull, £11 7s; London, £12 5s. Fish Meal: Bristol, £20 10s; Hull, £19; Liverpool, £13 10s; London, £18.

EGGS AND DEAD POULTRY.

Trade for eggs shows little change but most varieties became slightly dearer towards the close of the week. There is more inquiry for dead poultry, and prices mostly show an advance.

Week-end Prices—Eggs (per 120): English, 13s 0d, 11s 6d; Irish (Extra Selected), 13s 0d, 12s 9d; Irish (Selected), 12s 0d, 11s 6d; Danish (18 lb.), 14s 6d, 14s 3d; Danish (15½ lb.), 12s 3d, 11s 9d; Dutch, brown, 13s 9d, 13s 6d; Dutch, mixed, 12s 9d, 12s 3d; French (Normandy brown), 13s 9d, 13s 0d; French (Normandy mixed), 12s 3d, 11s 3d; French (Brittany), 10s 3d, 9s 9d; Belgian, 12s 3d, 11s 6d; Egyptian, 7s 9d; Polish, 9s 3d, 8s 9d.

Dead Poultry (per lb.): Fowls—Surrey, 2s 3d, 1s 8d; Irish, 1s 7d, 1s 3d; Others, 1s 11d, 1s 7d. Ducks, 2s 9d, 2s 3d.

EGGS.

Per Doz.—Ashford: First, 1s 4d; Second, 1s 2½d. Birmingham: First, 1s 3d; Second, 1s 2½d. Bridgwater: First, 1s 4d; Second, 1s 2½d. Chelmsford: First, 1s 3½d; Second, 1s 2½d. Colchester: First, 1s 4¼d; Second, 1s 2½d. Doncaster: First, 1s 5d; Second, 1s 4d. Dorchester: First, 1s 3¼d; Second, 1s 2¾d. Exeter: First, 1s 1d; Second, 1s 0d. Hereford: First, 1s 1d; Second, 1s 0d. King's Lynn: First, 1s 3d; Second, 1s 1d. Llandilo: First, 1s 1d; Second, 1s 0d. Mold: First, 1s 2d; Second, 1s 1d. Montgomery: First, 1s 0d. Newport (Mon.): First, 1s 2d; Second, 1s 1d. Norwich: First, 1s 2d. Oswestry: First, 1s 1d. Penzance: First, 1s 0d; Second, 11d. Saffron Walden: First, 1s 4¼d; Second, 1s 2½d. St. Ives (Hunts): First, 1s 3¼d; Second, 1s 2d. Salisbury: First, 1s 3d; Second, 1s 1d. Skipton: First, 1s 6d. Swindon: First, 1s 2½d; Second, 1s 1½d. Truro: First, 1s 1d. Welshpool: First, 1s 2d; Second, 1s 1d. *Carlisle: First, 1s 3d; Second, 1s 1d. *Derby: First, 1s 5d; Second, 1s 4d. *Ipswich: First, 1s 4d; Second, 1s 0d. *Lincoln: First, 1s 4d. *Shrewsbury: First, 1s 2d; Second, 1s 0d. *York: First, 1s 4d.

FOWLS.

Per lb.—Birmingham: First, 1s 8d; Second, 10d. Doncaster: First, †6s 0d; Second, †5s 0d. Exeter: First, 1s 8d; Second, 1s 4d. Hereford: First, 1s 8d; Second, 1s 6d. Llandilo: First, 1s 10d; Second, 1s 4d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First, 1s 5d. Welshpool: First, 1s 8d; Second, 1s 7d. *Derby: First, †6s 3d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

DUCKS.

Per lb.—Exeter: First, 1s 8d; Second, 1s 4d. *Ipswich. First, 1s 4d.

*At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, April 28th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

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Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

MEMBERSHIP OF THE S.P.B A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, or farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely, Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex.

The financial year began on 1st September.

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Advertisements must reach this office FIRST POST FRIDAYS for insertion in the following Wednesday's issue. Those received after this time will be inserted in the next issue.

PLEASE WRITE CLEARLY, and TO AVOID MISPRINTING OF STRAINS, NAMES AND ADDRESSES. THESE SHOULD BE WRITTEN IN PRINTED CHARACTERS.

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Ordinary Page, £8 15s. 6d.; Half Page, £4 7s. 9d.; Quarter Page, £2 4s. 0d.; One Column, £2 18s. 6d., Half Column, £1 9s. 3d. Quarter Column, 14s. 9d. One inch, 6s. 6d. Special Inside Pages, 25 per cent. on above rates. Cover and other Special Positions by arrangement. Discounts for Series. Full Scale of Advertising Rates on application.

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A DEPOSIT SYSTEM has been adopted for advertisements, and Advertisers are asked to make full use of same. When remitting direct to the Editor on deposit, the full amount of purchase money should be sent, and six penny stamps extra to cover cost of acknowledgment of same. Cheques should be made payable to the Editor and sent direct to The Beeches, Rudgwick, Sussex.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. — R.I.R. (Boucher), Runner and Khaki-Campbells. Eggs and Stock Birds. List free. Satisfaction insisted on.

1,000ft. Altitude—yet Utility Cup and Gold Medal Winners (Registered Pens) and records well over 200 for all breeders; White Leghorn, Black Leghorn, R.I. Reds, and Anconas. Built up from the most consistent laying competitors' blood procurable. Lists free.—Fentem, Chapel-en-le-Frith.

Eggs for hatching. W. Wyandottes, Light Sussex, R.I. Reds; 6s. sitting; £2 per 100. — F. B. Jessett, Drayton P.F., Havant Road, Cosham, Hants.

Free range stock. Fertile Sittings:—R.I.R., 4s. 6d.; Australorps x R.I.R., 5s. 6d; Indian Game, 7s. 6d. per 15, c.p., u.n.r. —Wortley, The Wilderness, Fransham, Norfolk.

White Wyandottes, White Leghorns, Tom Barron direct; R.I.R., Boucher-Measures and Golden's; 180-263; 7s. 6d., 15; 50s., 100. Khaki-Campbell, Pettipher direct; 7s. 6d., 12; 52s., 100; no replacements. Ducklings double.—C. Robinson, Grateley, Andover, Hants.

My Barnevelders win and lay; big brown sittings, 5s.; all privileges. Also Barnevelder Bantams.—E. Lonnen, M.B.B.C., St. Giles, Dorset.

Brown Leghorn Eggs; 7s 6d. dozen, from sisters and daughters of my pen holding fourth position in A.O.V. Section of "Daily Mail" Test.—A. Mansell, Kingston Stert, Thame.

White Leghorn Eggs; 5s., doz.; 25s., 100. Trap-nested (records over 200); 7s. 6d. doz.; 35s., 100. Reduction in quantities. Heavy breed Three Months Pullets; 7s. each.—Wood and Bacon, Arle Poultry Farm, Cheltenham.

Hatching Eggs (Best Strains). White Wyandottes, Light Sussex, R.I. Reds, White Leghorn, White and Fawn and White Runners, from 7s. 6d. per dozen.—Catalogues from Venner (late Berney), Harpenden.

Light Sussex Eggs; 100, 25s.; 50, 15s.. delivered. Chicks, 12, 10s.—F. Paynter, The Lawn, Lampton Road, Hounslow.

Pure-bred Eggs for Sitting, fresh and fertile, from pedigree layers; Rhode Island Reds (Measure's), White Wyandottes (Barron's) Buff Rocks (Hunter's); 4s. 6d. sitting.—Bridgwood, Poultry Farm, Smallthore, Staffs.

White Leghorns Eggs for hatching, from 7s. dozen; infertiles replaced. — Dr. Pascall, Milton Vicarage, Evercreech, Somerset.

Eggs for Sitting. White Wyandottes, winners of Championship Silver Bowl, Gold Medal, and Second for Lincs. Agricultural Cup; R.I. Reds, fourth in Single Bird Section. White Leghorns and Light Sussex.—H. Lee, East End Poultry Farm, Alford, Lincs.

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White Leghorns, daughters "Daily Mail" winners; 7s. 6d. dozen. White Wyandottes, daughters World's Record, Missouri winners; 6s. dozen; mated Snowden's Cockerels direct; carriage paid.—Davison, Railway Terrace, Garforth, Leeds.

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Burn-Murdoch strain; selected trap-nested stock; 6s. 6d., 15 eggs; 40s., 100; no replacements. Carriage paid.—L Scott Simons, M.S.P.B.A., "Upland," Woodbridge, Suffolk.

EGGS.

FOR SALE.

Alex. Wilson, M.S.P.B.A., Bankhe
Poultry Farm, Bucksburn, Aberdeen, offe
Pure-bred Light Sussex, White Leghor
Selected Eggs from second season hens,
6d per sitting, carriage paid.

**White Bresse; winners, 1st and 2nd eg
Tottenham and P.C. Open Cup; B.O. Duc
from dams of Olympia winners. Few Coc
erels and Drakes available. — List fr
Lieut.-Colonel R. S. Weston, Steeple As
ton, Trowbridge, Wilts.**

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for hardiness; free range in forest; 1s. 7
each; carriage paid; boxes returnabl
85 per cent. fertility guaranteed.—Gener
Pollok McCall, Blairquhan, Maybole.

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splendid pen; 10s. 6d. per 15.—Miss M. Fl
toff, Carburton Manor, Newark.

Rhode Island Reds Eggs; Faulkenste
strain. 6s. and 4s per dozen.—Apply, Esta
Office, Babraham, Cambridge.

BARRED ROCK EGGS.

7s. 6d. Also White Wyandottes, White Le
horns, Black Leghorns; 6s.; carriage a
boxes free.—Osborne, Radnage, Bucks.

**LOMAX WOOD, BODLONDEB, CONWA
White Leghorn Sittings; moderate pric
from trap-nested, healthy, pedigree stoc
good records, large eggs.**

Reliable Hatching Eggs. White Wya
dottes (Barron's) large-egg strain, 5s. do
50, 17s. 6d. Very special, 6s. doz. Aylesbur
Pekin Duck Eggs, 4s. 6d. doz.; 50, 16s. 6
Carriage paid.—Miss Eva Gleed, Whatcot
Shipston-on-Stour.

HERE'S YOUR OPPORTUNITY

to secure the best strains possible in Whi
Leghorns from Wilson Special Pe
Specially Reduced Eggs, 3s. 6d. doz.; 26s. 9
—James Wilson, Piked Edge Poultry Farn
Colne, Lancs.

S.C. ANCONAS.

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Anconas, because unsurpassed in eg
production, Hardy's look the best; eat th
least, and lay the most. 5s. per doze
Black Jerseys, 7s. 6d.—Howard, Cliburn
Penrith.

MARSH DAISIES.

Sittings now being booked from Viscou
Canterbury's celebrated winners. Pri
list free from—Estate Office, Bergh-Apto
Norwich.

EGGS AND CHICKS.

FOR SALE.

Eggs for Hatching and Day-Old Chick
by return, or orders booked for late
delivery, from my well-known flocks; a
free range; 600 acre farm; of Cam's Whit
Wyandottes, Rothschild's Light Susse
Schimnell's Barnevelders, Measures' Rhod
Island Reds, Hunter's Black Leghorn
Barron's White Leghorns. Eggs, 6s. doz.
£2, 100. Chicks double.—Mrs. Porter, Dish
ley Grange, near Loughborough.

EGGS AND CHICKS.

Eggs and Chicks from White Wyan
dottes, Light Sussex, White Leghorns
and Rhode Hens, with records of 240 pe
head, pullet year; Eggs, 6s. dozen; Chicks
15s.—Miss Brown, Priory Poultry Farm
Newnham, Gloucestershire.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, MAY 5th, 1926.

Editorial.

A SUBJECT OF INTEREST.

Our readers will be interested in the following letter which we have received from Mr. A. H. Brain. The points raised are of interest and importance, and deserve careful consideration and investigation. Mr. Brain will be the first to admit that further evidence of the connection between low grade fish meal—made from herring—and coccidiosis, with the possibility of the chick being infected from this source, is desirable. Some of our readers would probably think that the treatment to which the fish meal is subjected before it is rendered fit for market would make it impossible for it to infect the chick, but we should remember that the oocysts, or permanent cysts of the coccidium, are very tough, and will even live and grow in sulphuric acid. It can be killed by drying, but in a low grade fish meal with a high oil content this is not possible. In the best brands of white fish meal the danger would not exist. Still, we think the danger from this source from coccidiosis is not comparable with the danger and folly of using low grade fish meals which are only fit for manurial purposes. However, further investigation should be welcomed, and if any of our readers care to help in the matter, we shall be glad to receive any information they can send.

Mr. Brain's contention that B.W.D. is acquired rather than inherited is again important. More particularly do we commend to our readers' attention his remarks on incubation and brooding, as we have on many occasions suggested that heavy mortality was caused by lack of oxygen in the incubators during the last few days of incubation, and to the faulty ventilation of brooders. His suggestion that B.W.D. is in 80 per cent. of cases an acquired disease is new. Whether he means to imply that it is latent in every chick, and only becomes active when the conditions are favourable we are not clear; if so, he will find himself in conflict with research workers, for we have been assured by the most prominent of them that this is not so. With his concluding remark we are in cordial agreement. We have always contended that the real fight with disease should be in the field and not in the laboratory, and until we realise fundamental mistakes it is useless to appeal to the scientist, and expect him to solve our difficulties in the laboratory:—

Dear Mr. Newman,—I was sorry not to have had ten minutes close chat with you at the meeting of the National Poultry Council at Sutton Bonington last week.

What I wished to speak to you particularly about was certain facts that we have recently been testing in practice with regard to B.W.D. and Coccidiosis in chicks.

The subject of Coccidiosis appears to be a most important one, especially needing preventative measures to be adopted to prevent its occurrence in the future. This being the case, the following will, I have no doubt, be of interest to you.

I am indebted for much of the Bacteriological information to some of my friends who are experts in pathology, who informed me that it has recently been proved that a type of Coccidia in human beings, similar to that found in chicks, has been produced from the eating of herrings and their roes either on toast or bread and butter.

The result in humans is only intensive irritation for a time, as far as the investigations go.

Following up this information certain experiments have been made, and are in being with regard to producing this disease in chicks.

Fish meal, known to contain the red meat of herrings, including the herrings' roes, has been fed to chicks and Coccidiosis produced.

No doubt you will agree that this is important evidence which should be taken notice of, and in order to eliminate as far as possible this disease something ought to be done to prevent chick rearers obtaining any fish meal that contains the herrings or their roes.

One does not wish to say that all fish meal includes such, but, as you know, there are many grades on the market offered at cheap rates which are likely to include same, and are purchased by poultry breeders.

From the chick-rearers' point of view it is almost worthless when we consider the great risk and dangers from this disease.

You would probably find it worth while to find out where Coccidiosis has been in evidence on farms which you know of or amongst your members, and ask them if fish meal has been used, and in what amounts and what grades?

Some important evidence could be collected, and personally I think it would be time and trouble well spent to make such investigations.

Regarding the trouble of B.W.D., I venture to offer my opinion, and I am satisfied myself that the main origin is acquired rather than inherited—in fact, careful practical investigation which I have been able to carry out has proved B.W.D. to be acquired in about 80 per cent. of the cases. This again is an important finding, and, going further, we have definitely proved that the predisposing causes are mostly due to chill produced either through the extremes of cold or heat during the first few days of the baby chick's life.

The running of the incubator during the last week at a high temperature, in an incubator room that is not suitably ventilated or adapted for the purpose varying with periods of low temperature, also appears to have some effect.

We know that such chilling produces condition of digestive complications which causes diarrhoea, which may prove to be of the Bacterial type.

During the time chill is working its effect on the system there is a suspension of the natural yolk absorption in the chick's system with the following results:—

A) The unabsorbed yolk becomes swollen, and in some instances it will burst, emptying the contents in the abdomen of the chick, death resulting very quickly.

(B) The yolk becomes swollen, and certain Bacterial elements included commence to putrify, such putrefaction setting up poison, which, connected by tract to the lower gut of the intestines, deposits their poisonous matter into the intestinal canal, at the same time encouraging more extensive growth of these organisms, either of the bacilli or protozoan type, the first producing a B.W.D. condition and the latter a Coccidiosis one, and constant diarrhoael discharge.

(C) Brooder experiments with many types of modern brooders have given certain definite indication, especially where the flame of heat unit depends for its combustion on the oxygen present in the heated nursery, which means that the amount remaining for the chicks is insufficient, the current of air being so slow, and replacement at a speed sufficient to do so would cause draught in the quarters and likewise induce chilling conditions which prove fatal.

Take the blue-flame burner working in a small room, one can almost tell by instinct that the air is denatured of its oxygen.

It is at the same time, as you know, very unwise to increase the fresh air intake to satisfy both combustion, and chicks themselves owing to the risk of chill which would generally be unavoidable.

We come again to another point at this stage of our investigations, which is of the highest importance, and which appears to throw a great deal of light on the study—that is, where there is a deficiency of oxygen in the brooding arrangements, there is always a great opportunity of B.W.D., Coccidiosis, and Brooder Pneumonia (Aspergillosis) arising, this latter complaint being to my mind as important as any.

Lack of fresh air during incubation at high temperatures indicates how much liveability depends on oxygen, and disease and ailment immunity, and from post-mortem appearance and condition of the lungs chickens taken from the shell on the 20th day show that if they are so affected and hatched their opportunity for living is very small.

If you find these notes of any interest to you, I shall be pleased to go further into the matter, and if you find it worth while mentioning in some of your articles please do so by all means, but it is not a question of publicity, as I do not care whether my name is used in connection with them or not, but I feel that the time has come when it is necessary to attempt to put a stop to the panic which is taking place with many breeders attempting annually to rear large numbers of chicks and losing a great many, and any service I can render to this end is gladly done.

I was rather sorry that we could not have a meeting of the disease committee last week, when I should have mentioned these points to you.

I should like to say before closing that I am not satisfied with the completeness of the agglutination test, and it is to be doubted whether or not it will be of great service to the industry, having proved definitely that B.W.D. is produced equally in chicks from parent stock that have given negative by such blood test if subject to similar predisposing conditions of atmosphere and temperature.

I have it on the best bacteriological authority that if chicks are subjected to causes which predispose B.W.D. and the like, if B.W.D. is prohibited from being produced, may be through serum injection, etc., something else probably more potent, and death resulting, will arise.

The lines of investigation which appears to offer the most success in an attempt to find the best preventative measures must be on a far wider basis than at the present time, and if we tackle the incubator and brooder management problems with the idea of eliminating all predisposing causes for sickness and disease, which includes the first care of the baby chick, in a more comprehensive manner, we shall, in my mind, achieve much more than has been done in the past few years.

Kind regards, sincerely yours,

A. H. BRAIN.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

THE INTENSIVE SYSTEM—EXPERIMENTAL FARM.

I would just say in answer to one or two queries re the Experimental Farm, that hatchability of the eggs of the intensively-kept birds has been far from good. We are investigating this, and the experiments will be continued.

Time is not yet ripe to make any report upon the subject. The chicks which have hatched have been remarkably strong and vigorous, and the mortality has been practically nil. That is surprising in view of the poor hatching. We have every reason to believe that the fault is not due to incubation. All the chicks, some 450, have been reared intensively, except one brood under a hen. A few weakly chicks have been killed. There has been no sign of leg weakness.

In reply to many queries on the subject, may I say that at the present moment we are not ready to receive visitors. Directly we are in a position to do so, an announcement will be made in these columns. I think it will be agreed that while we are still in the constructive stage it is hardly desirable.

A READER'S SUCCESS.

The following letter has been received from Mr. J. Ormsby:—

Dear Sir,—It is with the greatest pleasure I pen these few lines, in appreciation of your various remarks and suggestions regarding the intensive system. May I state first that I am a backyarder?

Now to business. I put 40 eggs last season into a 50-egg incubator. Out of this 40 I secured 31 strong, healthy chicks, due mostly to your advice re non-cooling, leaving the felts in, etc. I kept 24 of these chicks, disposing of the other seven as day-olds. Out of this 24 I secured 12 good pullets, disposing of 10 cockerels and two pullets. This 12 commenced to lay on September 23rd, and laid accordingly: Sept. 4; October 78; November 188; December 177; January (1926) 217; February 179; March 265. One pullet died on March 5th. This month's supply will be more than last, as they are now laying very heavily. This season I have secured 39 strong chicks out of 41 eggs. The lamp was out for some hours on the 19th night but that had not affected the hatch. All these chicks are in fine condition. Regarding the pullets: they have had no neck moult or any trouble whatsoever (thanks to your suggestions for trough feeding of corn), neither did they receive any extra night feeding with lights during the winter months. I feed the corn, three of maize, 1 of wheat in troughs regularly at 5.30 p.m., with your dry mash before them from 8 a.m. till dark. Fresh greens were seldom fed owing to the scarcity of same. I depended mostly on the alfalfa meal.

I might also mention that all eggs laid, excepting two or three at the commencement, have been of good size and quality. I might also mention that these last year's pullets are the dams of my present chicks."

LIGHT EYES AND RED.

A question which very frequently comes to hand is the possible connection between fecundity and eye-colour. A breeder writes to say that he notices that his best Rhode Island Island hens have grey eyes, and are far more productive than those with red eyes, and he wants to know whether there is any connection between grey eyes and fecundity. Sometime ago I remember an article appeared in these columns, in which the writer said that he had observed that all the best layers among his White Leghorns had combs which fell over on the right side of the head. An American once stated that Leghorn cockerels, with "Rocker" combs—that is combs following the line of the neck—made the best breeders of layers. Now with regard to the grey and red eyes, the probable explanation is, that the foundation stock had grey eyes, and as grey is dominant to red, the majority of the best layers did have the grey eye; the same explanation would in all probability explain the comb in the other two cases.

LOW VITALITY.

A reader, who states that he is a beginner, wishes me to describe signs of low vitality which he may observe himself, so that he may discard such hens and not be tempted to use them as breeders. I will do my best. A dull listless eye, inactivity, wings not close to side, but not necessarily drooping, poor appetite, plumage "stairy," comb and wattles poorly developed and rough, lacking the bright red colour which indicates health and vigour, lobes usually small and creased. The same remarks apply to the male, while in the Mediterranean breeds there is often a tendency for the comb to fall over.

ROSE COMBS AND SMALL EGGS.

A reader asks: "What is the connection between the rose-comb and the small egg?" Nearly all rose-comb breeds lay eggs which do not compare for size with those laid by the single comb breeds, Hamburgs, Wyandottes, Anconas, Minorcas, etc. Everyone seems to be trying to find connections this week. There is of course, no real connection between the size of egg and the comb. The Hamburg is a small bird, laying a small egg, quick to mature, and it is here we possibly find the cause of the small egg. The other three breeds mentioned have all more or less Hamburgh blood in them, and to this we can trace their prolificacy and the small egg. There are some strains of each breed, however, which will lay large eggs, and where selection has been made on these lines the Hamburgh blood has to a great extent been eliminated, and the inheritance of size of egg has been from another breed. I agree the Rose-comb Minorca does not lay as large an egg as the s.c. variety, but I should not call their eggs small.

LEG-WEAKNESS.

In no previous season do I remember so few complaints as to leg-weakness. This is most satisfactory, and I am beginning to hope now that we have got to the root of a trouble which has caused very heavy losses, and which no one has yet been able to explain. It is all the more satisfactory to be able to record this because it has not occurred in a season which has been remarkable for the amount of sunshine. A very large number of our members took the advice which has been given so often in these columns, to add two per cent. cod liver oil to the mash, and this, in the majority of cases, has been found most effective both as a preventive and cure. In addition to this, the better ventilation of brooders, particularly as regards floor ventilation, has done much to help. There are still some very puzzling cases. One large breeder with many years' experience, told me recently that his losses each year are very heavy, particularly during the early months, and this year had been no exception to the rule, although an extended trial had been given to cod liver oil, and well ventilated brooders. In a few cases, there was a tendency to think you can't have too much of a good thing, and a double dose of cod liver oil was given to make doubly sure, with the result that there was serious digestive trouble and heavy losses.

THE BREEDING SEASON.

I think this has been one of the best breeding seasons we have had for some years. The disease which reports received incline me **to** think is causing most mischief is coccidiosis. **Further**, the losses from this trouble appear to occur at a much earlier age than they did when first we made its acquaintance. Then we usually found it occur when the chicks were from three to four weeks old, now it has been reported at 23 hours old, and in one case at 18 hours. There have been some bad losses from B.W.D., but they have not been so numerous as last year. Gapes I have not heard so much about this year as last, which I think was one of the worst years we have known for this trouble. But Aspergillosis appears to be on the increase; we hear far more of it than we ever did, and one would like to know the reason. Fertility was rather poor early in the season, but hatchability appears to have been better than last year.

THE DUCKERS' "QUARTERLY JOURNAL."

The Committee of the Utility Duck Club, are ever enterprising, and I most heartily wish them success with their new venture, for they honestly deserve it. The "Quarterly Journal" (I have just received the first issue) is splendid, and I venture to hope it will receive the support, not only of the members of the U.D.C., but also of those "duckers" who are not members, and that it will eventually induce them to join up. There are a number of interesting articles in the Journal, and Mr. Carrington tells me that great efforts are being made throughout the country to educate duck egg producers to market their eggs in the proper manner, and that this is bearing fruit, for he no longer receives complaints from members that they are unable to market their eggs. Well done, the

(Continued at Foot of Column Next Page).

Something about the Fancier.

By J. STEPHEN HICKS.

The stock sales of the fancier breeder are, as has been pointed out, variable and uncertain, according to his success or otherwise, until he has reached a more or less assured position. Bar his rightly or wrongly termed "utility" stock (which we have already discussed), he usually begins disposing of good individual birds from July onwards. At first the stock goes in driblets—a cockerel here, a pullet there, but orders commence growing more numerous as the autumn waxes and wanes, and now trios, quartettes, breeding pens, and birds for export will be asked for.

If I may be permitted to say so, there is one aspect of this trade of the fancier's which does not apply quite in the same way where utility breeders are concerned. It lies in the fact that value in his case must be apparent, while, in the other man's, it is not so—save on paper. That is to say, that, whereas if an exhibition-type cockerel is being sold at perhaps £5, the buyer, who is generally pretty well up in standard points, very speedily returns it should it fail to pass muster before his critical eye in being unpacked. The "laying competition" breeder, on the other hand, can after all only send pedigrees with his high-priced stud males, which the buyer is bound to take on trust. Without, therefore, wishing in the least to stir up strife or start a controversy, I certainly do think that in the above connection the fixing of a certain standard of breed-excellence, to be attained by **all** breeders of pure varieties must eventually be a distinct gain to our industry—certainly not the reverse.

The question of total receipts from stock sales must necessarily be a very vague one. If we endeavour to tackle it, taking, as before, the average breeder we shall have to divide his seasons up into three sorts—namely, good, moderate, and poor (that is, as regards his breeding results). From a great many years' experience, from observation, and as a result of various inquiries, I have not much hesitation in saying that the following scale represents fairly accurately the expectation of receipts from every bird reared to a saleable age, including wasters, and excluding young stock retained for home breeding use:—

GOOD STRAIN.	MODERATE.	POOR.
30/- per head.	25/- per head.	17/6 per head.

Further than this it is useless to pursue this problematical subject, nor need we touch upon the very occasional "record" prices obtained by some champion. Suffice it to say that the average fancier would consider himself lucky if he achieved a £50 (or higher) sale once in his career.

Before dismissing this particular subject, one may perhaps mention the value of a big win. Taking the Dairy Show as the acme of achievement in young stock, I remember once discussing with a knot of fanciers the cash value of an open first there. "Well," said one noted breeder, a past president of a certain poultry club, "I reckon that a first at the Dairy is £100 in my pocket." This opinion was generally endorsed, as quite reasonable, by all of us. Exactly what was meant was that, having obtained this award, any fancier would increase his sales by £100 in one way or another during the ensuing twelve months, having, apart from this particular bird, precisely the same stock for disposal, which, had he only obtained some minor award, would have realised £100 less.

Comparisons being proverbially odious, I know that I leave myself open to strafing in advancing the opinion that, on the whole, the fancier's life is a more interesting one than the utilitarian's. "Chacun a son gout," of course, but apart from the daily round on the farm, I venture to think that the fancier gets about the country more, and has a more varied experience generally than his utility brother. No particular credit in that, naturally, for it merely comes within the scope of his business. A good deal of his trade is actually done at shows, and it is a remarkable fact (or perhaps not so remarkable when you come to look into things) that there is a fairly large class of buyers which prefer to do business with the man on the spot rather than by correspondence. In other words, a man will put off "buying a cockerel" or a pen until he can get to some show which, eventually, he attends, vaguely meaning to wait and see what transpires or who turns up. Naturally it is the breeder actually present who secures his order.

Early mating, at any rate of one or two pens, is part and parcel of every fancier's regime, and by the beginning of November part of the stock will already have been selected, though perhaps the males will not actually be introduced for another fortnight or so. The younger hens, however, having enjoyed the three or four months "easy," already alluded to, are being brought on in the comfortable pen houses now probably renovated, and the ground well rested, so that eggs are by no means lacking.

As has been said, the fancier, when mating up, relies but seldom on the evidence of the trapnest, but, taking each mate as he wishes to use him,

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S.P.B.A.—Continued.

U.D.C.-! I should just mention that the price of the Journal is threepence, and threepence well spent is something like a Sunday well spent. Incidentally, I take the following from the Editorial:

> "It is clear that we duck people must seriously consider dry v. wet mash feeding."

How the world moves!

proceeds to mate round him, using his own instinct and judgment—that is, he regards (on the whole) the females as subservient creatures hardly constituting one-half of the pen in importance. Thus he will criticise his male severely, and endeavour to counteract his imperfections by adding females strong in those particular points. His best pen may, therefore, be a little heterogeneous in its composition, and is certainly not necessarily a mere collection of his most noted winners.

He in-breeds—as he must to be consistently successful—but not indiscriminately. For one thing, his main principle is to mate youth with maturity (or vice versa, considering the male first). He is usually alive to the risks of this practice, but, without entering upon any discussion of an intricate and vexed subject, it is pretty well universally concede that stamina and other constitutional features can be intensified by inbreeding, as can the remaining factors in a bird's make-up, provided both relations possess them, and in any case, since a general tendency towards deterioration in size and condition would automatically put an end to the fancier's ambitions, he knows generally where to stop. Fresh blood (possibly from some related strain) will be introduced when necessary—that is all that need be said on this point.

In conclusion, let me say how grateful I am to Mr. Newman for allowing me this opportunity of presenting a few facts about the fancier to readers of "Eggs." My main object has been to try and show that he is by no means so black as he has sometimes been painted! There is a distinct movement in the air at the present moment to bring the two—may I call them?—extremes of the poultry industry into closer touch with one another, and I for one am all for it.

Futile and hidebound indeed would the fancier be who denied that he had gained either knowledge or benefit from the studies and work of the utilitarian, while almost equally the converse applies.

To misquote the immortal Kipling, let it not be said that

"Eggs is eggs and size is size,
And never the twain shall meet."

GLAMORGAN AGRICULTURAL COMMITTEE—COUNTY EGG-LAYING TRIALS, 1925-26.

REPORT FOR SIXTH PERIOD.

Heavy Breeds.—J. Joshua, Tondu (R.I.R.), 2106 pts.; A. L. Davies, Morriston (W.W.), 1765; R. G. Evans, Abertridwr (R.I.R.), 1725; Mrs. Jenner, Wenvoe (W.W.), 1717.

Light Breeds.—Howell & Phillips, Barry (W.L.), 2536 pts.; D. J. Thomas, Pontardawe (B.L.), 1986; A. J. Jenkins, Barry (W.L.), 1896; D. Hopkins, Port Talbot (W.L.), 1803.

Single Birds—Heavy Breeds.—G. Haylings, Ynysybwl (W.W.), 678 pts; G. A. Monk, Ynysybwl (W.W.), 651.

Single Birds—Light Breeds.—G. A. Monk, Ynysybwl (W.L.), 376 pts.; T. E. Lewis, Pontardawe (W.L.), 348.

Dry Mash Birds laid 1,426 eggs during this period.

Wet Mash Birds laid 1,039 eggs during this period.

Bird No. 2 of Pen 12 (W.L.) died on March 30th from dropsy.

Some Fruit-Growing Notes

to help Poultry-Keepers.

By F. W. WHEELER, F.R.H.S.

VINES (continued).—Having had to devote the whole of my last notes to the treatment of new shoots and laterals on the vines, I feel that a few remarks ought to be added about watering, thinning and ventilation, for these matters are often, to the beginner, quite as puzzling as the treatment of the masses of shoots a vine produces each spring.

In passing, let me say that the vine usually planted in houses not heated with pipes is the well-known "Black Hamburgh," so my remarks will apply chiefly to that variety, and I shall omit small variations of cultural treatment necessary to other kinds.

WATERING.—Here we generally have two cases to be considered, namely, (1) those vines where the roots are planted inside the greenhouse, and (2) those where they are planted outside. For the latter the rain will usually provide what is necessary, unless the roots come on the sheltered side of the house, or a spell of dry weather sets in at a critical time when moisture is essential. In these cases additional water should be given, and at the times to correspond with indoor applications. The most useful watering to outdoor rooting will be an application of liquid manure, especially just before the berries start to colour. If the ground is dry, first soak with clean water, and naturally a wet or dry summer will guide us somewhat in these operations. Coming now to the vineries where the roots are inside, it is best to apply water at only five or six periods, and then to give a good soaking, which is far better than several light applications:

1st.—After cleaning the vine, and when closing down the house in readiness for the new season's growth, a time varying according to districts and circumstances.

2nd.—Just previous to the vine flowering—use tepid water whenever possible, and a temperature rather warmer than the house, a tank sunk into the ground with a reserve of water INSIDE being very useful, and far better than only a tub outside catching roof water.

3rd.—When the bunches have set their blooms and the berries are starting to swell. If the vine is more than two years old, weak liquid manure can be given with advantage. (It is better to have this too weak than too strong, and the further use of clear water will likewise help to carry down the manure to the lower roots).

4th.—When berries are about half their full size and the stoning period is in progress.

5th.—When the berries start to show signs of colouring (liquid manure can again be given at this period). At this stage also the vines often exhaust the moisture in the soil rapidly, and a further watering (6th) about ten days after (5th) can be given with advantage; the amount of sunshine, which varies considerably each year, guiding us as to the quantity required.

Do not apply stimulants when the berries have coloured, as it is useless to the hanging crop. Water is best applied in the morning, as air can then be admitted to the house to take off surplus moisture and ammonia fumes when using liquid manures.

Closely connected with watering is SYRINGING, and this is very beneficial when the rods start to break into growth. It can be continued, if carried out judiciously, until the flowers are seen on the new shoots, always bearing in mind outside weather conditions.

Avoid moisture when vine is in flower, so that the pollen will have a better chance of being dispersed and a more perfect setting of the fruit obtained. Rust on the berries and other troubles are likely to follow if this care about excessive moisture is not taken at the flowering period. I mention this, as amateurs often fill up their greenhouses with so many pots of flowers, etc., etc.

After the flowering period "syringing can be discontinued, but in bright weather, the floors and walls can be damped once or twice during the day time, but not after closing down for the evening."

Attention to these details will considerably affect our success, not only in quality of fruit but in bringing the fruit to full ripeness before the cold autumn days and nights arrive. I therefore propose devoting another article to a few more important points which cannot be squeezed into to-day's notes.

(To be Continued.)

SEVENTH MIDLAND LAYING TEST.

Sixth Month ended April 18th, 1926.

LEADING PENS IN EACH SECTION (four birds in each pen).

White Leghorns.—Wilson Beattie, Northampton, 405 pts.; A. Pickard, Chilvers Coton, 392; J. Hampson, Ainsworth, 379.

White Wyandottes.—F. E. Townson, St. Albans, 426 pts.; Mrs. Seed, Longridge, 413; Rev. W. H. Blight, Chard, 410.

Rhode Island Reds.—Miss E. Gibson, Wolverhampton, 393 pts.; G. T. Warr, Alvechurch, 391; F. and T. Lumb, Hebden Bridge, 376.

Light Sussex.—F. R. Welch, Bewdley, 381 pts.; Wilson Beattie, Northampton, 319; Capt. A. Munro Spencer, Hants, 302.

A.O.V. Heavy Breed.—T. Brooksbank, Hedon (Bf. Rks.), 299 pts.; J. Martin, Bolton (Bf. Orps.), 300; A. Hobson, Blackpool (Bf. Rks.), 270.

SINGLE BIRD SECTION.

Light Breeds.—Mrs. E. Fort, Williton (An.), 97 pts.; H. Armitage, Golcar (W.L.), 94; Mrs. W. H. Sershall, Winson Green (B.L.), 85.

Heavy Breeds.—Mrs. E. Nicholls, Alvechurch (W.W.), 111 pts.; C. W. Cracknell, King's Norton (W.W.), 103, B. Albutt, Bromsgrove (W.W.), 99.

DEVON COUNTY EGG-LAYING TRIALS, 1925-26.

Report for Sixth Period—March 4th to March 31st, 1926.

Light Breeds (75 Pullets).—Specials, 2,297; Firsts, 1,820; Seconds, 2,094.

Heavy Breeds (125 Pullets).—Specials, 4,222; Firsts, 2,890; Seconds, 3,435.

LEADING PENS TO END OF SIXTH PERIOD.
Figures are Eggs and Points respectively.

Light Breed Section (Five Pullets to Pen).—Mr. H. C. Wood (W.L.), 575, 4945; Messrs. J. and L. Grimson (W.L.), 463, 4023; Mr. G. K. Simmons (W.L.), 505, 3942.

Heavy Breed Section (Five Pullets per pen).—Brig.-General M. E. Richardson (W.W.), 572, 4931; Mr. G. V. Thompson (W.W.), 520, 4365; Messrs. A. and J. Rew (W.W.), 562, 4301.

Single Bird Performances to end of Sixth Period.—Capt. H. M. Jelley (W.W.), 119, 1190; Mr A. B. Gay (W.W.), 121, 1158; Messrs. A. and J. Rew (W.W.), 135, 1143.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

F. P. R. (Colne) seeks advice as to treatment of pullets moulting, but what is the cause of their moulting at this season? There must be something wrong, especially as he tells me the birds stopped laying suddenly, moped and moulted. I would suggest he gives them all a dose of Epsom salts, and immediately changes the food, for I strongly suspect there is something wrong here. He should see that it is not musty, and should carefully examine the meat or fish meal, whichever he is using. I could have helped him better if he had given me more details, and sent me samples of the foods he is using. In cases of this kind it is wise to send the fullest particulars.

S. A. (Heaton Moor) bought sittings of Black Leghorn eggs, and as many of these are creamy in colour, he doubts whether the stock is pure bred. He need be under no alarm. In some strains of Black Leghorns the Minorca was blended, and this would account for many of the eggs being creamy. (2) There is very little to choose between the two samples of chick feeds; (B) is rather the better. It contains millet, which is very difficult to digest, otherwise it is a nice clean sample. (3) Unabsorbed yolk can hardly be described as a symptom of B.W.D. You will find it in all chicks where digestion is arrested by disease.

C. S. (Skipton) has a number of February-hatched White Wyandottes. They did well until a few days ago; now a few of them look as if their wings are too big for them and are rather anaemic. The probable cause of the trouble is crowding at night, and I think if my correspondent would provide perches, he would soon effect an improvement. When chicks are crowded on the floor of a house at this age they rarely get sufficient oxygen. The samples of food sent are quite satisfactory, and there is nothing in the management in other respects to account for the trouble. (2) He asks me what I think of charcoal—is it essential? One can hardly say it is essential; it is very useful in preventing digestive trouble with young chicks. It aids digestion by preventing or dispersing gases which form in the stomach.

C. M. D. (Marlborough) found on visiting the incubator room that something had gone wrong with the lamp, and temperature had fallen to the eighties. He is worried about the 240-odd eggs which had reached the 13th day, and wishes to know what I think of his chances. I do not think any great harm will arise, a little earlier it might have been serious, but beyond the hatch being delayed a few hours, it is not likely to be much affected. (2) In answer to his second question as to the feeding of chicks entirely on meal, this was successfully accomplished at Wellingham, as has been so frequently mentioned in these columns; but the matter needs further investigation, and we may make some experiments on these lines on the experimental farm; I should expect more rapid development than that we obtained, but we have to consider how this is likely to affect the mature bird.

"Brass Tacks" writes:—"I should like your opinion on the following:—I am feeding my fowls on standard lines, and am satisfied with egg production. Now a friend advises me to feed as follows: One ounce of broad bran fed in a hopper and about one and half ounces of oats or maize sprouted at night. A little fat and green stuff from the garden if possible. This feeding would cut my costs down 50 per cent., but what kind of egg production do you think I should get? Presumably my correspondent's friend is speaking from actual experience, otherwise he would not venture to give such advice?" In my view this ration would be so deficient in carbo-hydrates and heat-giving foods that it would be impossible for a hen to produce many eggs. The advice to give green stuff from the garden conveys the idea that the hen will pick up much of her food on range, and a "little fat" is rather indefinite. I can only say that I cannot possibly see how such a method of feeding can produce eggs. It may cut down the cost by 50 per cent. In fact, I should think that it would cut it down 75 per cent., but what the eggs would cost to produce is the problem we have to consider.

MIDDLESEX AGRICULTURAL EDUCATION COMMITTEE.

COUNTY LAYING TRIAL, 1925-26.

Report for Sixth Period—4th to 31st March, 1926.

With the much-improved and spring-like weather the health has been excellent. Two deaths are recorded.

There has been an increase in the number of eggs laid during the period, but there has been a slight falling off in size, 54 per cent. of the total production being over 2ozs., as against 59 per cent. last month. The highest daily collection was 102.

SUMMARY OF POSITIONS TO DATE.

Figures are Eggs and Points respectively.

Several alterations in position are noted among the Light Breeds in Section 1a, and one alteration in Section 1b.

In Section 2 and Section 3a and 3b the positions are unaltered.

The leading pens in each section are:—

Section 1a (Light Breeds, Five Pullets).—Mrs. D. A. Fowler (An.), 354, 2924; Miss G. Compton (B.L.), 324, 2644.

Section 1b (Heavy Breeds, Five Birds).—Sir J. Fitzgerald (L.S.), 515, 4174; E. Fownes (W.W.), 456, 3527.

Section 2. (Teams, Five Birds).—Hounslow P.S., 378, 3051; Bethnal Green P.S., 335, 2705.

Section 3a (Single Birds, Light).—J. N. Williams (W.L.), 112, 862; R. W. Baker (W.L.), 108, 793.

Section 3b (Single Birds, Heavy).—F. E. Robinson (W.W.), 102, 828; C. G. May (W.W.), 108, 715.

IRISH EGG-LAYING COMPETITION, 1925-26. (HENS AND DUCKS).

Results for Period—16th October, 1925, to 31st March, 1926.

Section 1. Non-Sitters).—Jas. Gourley, Crossgar, Co. Down (W.L.), 589 eggs; T. J McGuire, 31, Claremont Road, Sandymount, Dublin (W.L.), 560; L. Murphy, Whitechurch, Co Cork. (W.L.), 591; H. H. Briscoe, Loughall, Co. Armagh (W.L.), 597; Capt. M. S. Close, Poyntzpass, Co. Armagh (W.L.), 571, Capt. R. G. Ferguson-Kelly, Maelruens (W.L.), 578.

Section 2. (White Wyandottes).—O. J. Murphy, Malahide, 742; Mrs. Chearnley, Ballinhassig, Co. Cork, 727. Mrs. Strong, Kells, Co. Meath, 687; Mrs. J. M. Walsh. Murroe, Co. Limerick, 680; Lady Dunleath, Ballywater Park, Co. Down, 659; Mrs. R. Croasdaile, Mountmellick, 653.

Section 3. Heavy breeds (other than White Wyandottes).—Mrs. D. C. Chearnley, Cappoquin (R.I.R.), 700 eggs; F. Stuart Brown, Bagenalstown (L.S.), 690; Miss G. Stuart Reeves, Newbridge (R.I.R.), 619; Mrs. M. Connolly, Kildare (R.I.R.), 592; Mrs. B Byrne, Jenkinstown (R.I.R.), 585; Mr. E. A. Poulter, Clonskeagh, 609.

Correspondence.

MARKETING OF EGGS.

To the Editor of "Eggs."

Dear Sir,—I am sure all egg farmers will read with interest and appreciation the letter from Mr. Norman Preston in last week's issue of "Eggs."

I have always advocated that the English egg should be packed in non-returnable packages, similar to those used by the Danes.

Would it be possible for poultry farmers to buy the necessary wood wholesale and knock up their own packing boxes? The cost of these would be more or less counter-balanced by not having to pay the carriage on any returnable empty cases.

If Mr. Preston would be good enough to write an article on foreign methods of packing eggs, I am certain it would be profitable reading matter for members of the English egg farming industry.

Yours truly,

A. SIDNEY MARSH.

MARKETING OF EGGS.

To the Editor of "Eggs."

Dear Sir,—Without the help of science our industry will not go far, without research into the problems of feeding and disease we shall not go far. Without the continuance of Laying Trials the same applies, but I think, above all, that unless our Marketing of Eggs is taken in hand at once, the few matters I have mentioned will be wasted, because there will not be many of us left to take advantage of them!

Mr. Norman Preston's letter in your current issue is one more testimony from the trade that, GIVEN EFFICIENT MARKETING the English egg has the "Market at its feet." But is anything being done? Nothing at all so far as I can see. The National Poultry Council report that the National Farmers' Union are doing nothing, and piously hope "there will be no further delay, or the interest aroused by the Conference will be lost." In my opinion, if we wait for the N.F.U. we shall all grow beards in the waiting. I find them in this country hopeless on poultry matters, and if they DO encourage poultry breeding by their poultry committees, what help will that be under our present system of marketing? Cannot the National Poultry Council take matters into its own hands and put forward a scheme to the Ministry? Nothing half-hearted, no hashed-up luke-warm ideas of co-operation, but a bold bid for Ulster's legislation. If they did they should earn the gratitude and the subscriptions of all sane poultrymen, though the subscriptions part would be doubtful, for all the best poultrymen want "something for nothing."

I should have thought by now that even the densest of our ostriches would have realised the value of a TRADE UNION, and would have supported it, but do they? If they all did, the National Poultry Council could go forward on egg marketing on its own and leave the N.F.U. to slumber alone.

Yours faithfully,
PHILIP CLAPHAM.

REGISTRATION.

To the Editor of "Eggs."

Dear Mr. Newman,—At last I have learnt the value of our Registered Pens. Our 1926 Year Book brought me an enquiry from Denmark, and I am pleased to say I secured an order for 200 White Leghorn day-old chicks.

These chicks are being despatched on Wednesday next (April 20th), at 8 a.m., from Croydon, and will reach Copenhagen by air at 5.30 p.m. that same day, and all being well will be in my customer's hands at Elsinore that night.

I only hope the birds will in due time do as well in their new country as their parents have done in my hands, and thus uphold the value of stock bred from S.P.B.A. registered pens and other pens of equal merit.

This episode is surely sending "Coals to Newcastle" with a vengeance, but it is to be hoped the **British** housewife will not be buying the eggs laid by these birds next winter.

Yours sincerely,
H. C. COLLINS.

TROUBLES OF POULTRY GROWERS.

To the Editor of "Eggs."

Dear Sir,—During the last few years at least two societies have been formed to deal with Poultry Produce, and to give the producer a far better time than he gets from the ordinary dealer. What is the result? So far as I can gather, both are absolute failures so far as the producer is concerned.

Recently I tried an experiment to see if the dealer or the society would pay a reasonable price for good selected eggs. This is what I did :—

March 12th.—Five cases of mixed eggs, minimum size 1¾ ozs., to a London wholesaler; for these I got 12/- per 120, cash on delivery.

March 15th.—Six cases, graded 16, 17 and 18 lbs., brown and white, separate cases, and all advised as such to same dealer. Result, 11/6 per 120.

March 19th.—Four cases to my society, 16, 17 and 18 lbs., graded as above, credited 1/2 per doz.

March 22nd.—Three cases to Society, 16, 17 and 18 lbs., graded as above, credited 1/2 per doz. I am still waiting for cash from the society, not due till the 20th inst.!!!

On reference to London Markets you will see price remains the same over this period, with, I think, 3d. per 120. Needless to say, all eggs were clean and new laid.

I paid a pretty stiff premium to have the privilege of sending my produce to the society, but what advantage I get I fail to see.

When it was proposed in "Eggs" to form these societies a few years ago, I suggested that it was not more societies we wanted, but a combination of those already in existence, with a manager who understood the business.

I joined the particular society I mention because their business was to deal with hens and chickens on different lines from the usual dealer, and in my opinion ought to have been a success. However, it was not so, and I think some of us would like to know why.

There are firms in London who deal in eggs on a 12½ per cent. margin, and naturally make a profit for themselves; this being so, why a society cannot do the same is surely purely a matter of management?

Why cannot the larger societies, formed for dealing in poultry produce, meet together and talk things over? Now is the time to do it, and thoroughly organise the egg and poultry trade.

I know nothing of the Continental organisation, but it must be good, otherwise they could not get on the English market.

Why we should sell eggs to our society or dealer for 1/2 when they are retailing at 1/9 I do not know. How can any society expect support under the circumstances?

Yours faithfully,
"PRODUCER."

B.W.D.

To the Editor of "Eggs."

Dear Sir,—Your correspondent "N.D.A.," discussing B.W.D., draws an analogy with abortion in cows, and makes the statement that in 99 cases out of 100 an abortive cow will never abort again.

Although this is a subject not precisely in character with "EGGS," and has no similarity to B.W.D., it ought to be pointed out that an aborting cow is certainly most liable to abort a second and even a third time. Many dairy farmers can unfortunately confirm this.

Yours faithfully,
C. T. BURGESS.

Food Purchase Scheme.

May we state that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns.

We cannot give prices here, as space will not permit, but price lists will be despatched immediately to any member, if application is made to this office.

Referring to the odd cwts. which are now to be supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown.

This is to cover the extra expenses and handling which the one-cwt. business involves.

If the total order amounts to 5 cwt. and over, this extra charge will not be made.

Will all members ordering under this Scheme kindly note that orders received by second post on Saturdays, cannot be dealt with until the following Monday.

PRICES OF MASHES, ETC., PER CWT.

The following meals can be supplied in 5-cwt. lots and upwards of one kind, free on rail:—

F.O.R.	Layers	Growers
Liverpool	11/0	11/6
London	11/9	11/9
London	11/3	11/3
Leith	11/3	10/9
Leith	10/3	10/3
Leicester	11/3	11/3
King's Lynn	11/3	11/3
Belfast	12/9	12/3
Bristol	11/3	11/3
Southampton	11/6	11/6
Plymouth	12/0	14/0
Aberdeen	12/0	12/6
Harrogate	11/6	11/6
Glasgow	12/0	12/0
Staffs	11/0	11/0
Herts	11/0	10/3
Bradford	11/6	11/6
Birmingham	11/6	11/6
Greenock	11/6	12/0
Tewkesbury	11/3	11/3
Bolton	11/9	11/9
Middlesbrough	11/3	11/0
Mid Sussex	11/3	11/6
Sussex (East)	11/6	11/9
Sussex	11/6	11/6
Essex	11/0	11/0
Birkenhead	10/9	11/0

SPECIAL OFFERS.

FISH MEAL: F.O.R. GRIMSBY and TYNEMOUTH—5 cwts. and upwards, at 16/6 per cwt.; under 5 cwt. orders at 17/3 per cwt.

UNEXTRACTED DRIED YEAST: F.O.R. GRIMSBY and TYNEMOUTH—At 20/3 per cwt. for 5 cwt. orders; 20/9 for orders under 5 cwts.

FISH MEAL, with the following analysis:—

OIL ... ... 4.5 per cent.
ALBUMINOIDS ... ... 55.60 per cent.
PHOSPHATES ... ... 16.18 per cent.

Prices F.O.R. LONDON

Under 5 cwts. ... ... 18/9 per cwt.
5 cwts. orders and upwards ... 17/9 per cwt.

FISH MEAL:—

OIL ... ... under 4 per cent.
SALT ... ... under 3 per cent.
ALBUMINOIDS ... 55/60 per cent.
PHOSPHATES ... 15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—

ALBUMINOIDS ... 35/40 per cent.
FATS ... ... 10/15 per cent.
PHOSPHATES ... 25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—

ALBUMINOIDS ... 57/62 per cent.
FATS ... ... 10/15 per cent. at 15/6 per cwt.

F.O.R. MIDDLESBROUGH.

LIMESTONE GRIT: F.O.R. BRADFORD (three grades)—Poultry, Medium. Chicken. In minimum orders of 5 cwts. at 2/6 per cwt.; single cwt. included in order for other goods from Bradford, at 2/9 per cwt.

PURE UNEXTRACTED DRIED YEAST:—

F.O.R. LIVERPOOL ... ... at 21/0 per cwt.

SUSSEX GROUND OATS at 12/9 per cwt. F.O.R. Birmingham.

PRICES OF MASHES, ETC., PER CWT.

The following meals can be supplied in 5-cwt. lots and upwards of one kind, free on rail:—

F.O.R.	Breeders	Chick
Liverpool	12/9	12/9
London	12/9	13/0
London	12/3	12/6
Leith	11/9	11/9
Leith	10/9	11/3
Leicester	12/0	12/6
King's Lynn	11/9	12/6
Belfast	13/0	14/0
Bristol	12/0	12/9
Southampton	12/6	12/6
Plymouth	12/6	14/3
Aberdeen	13/6	13/6
Harrogate	12/3	12/9
Glasgow	12/0	13/0
Staffs	12/0	12/0
Herts	11/3	11/0
Bradford	12/3	12/9
Birmingham	12/3	12/6
Greenock	12/9	13/3
Tewkesbury	12/0	12/9
Bolton	12/9	12/9
Middlesbrough	11/3	12/3
Mid Sussex	11/0	12/3
Sussex (East)	12/6	12/0
Sussex	12/6	12/6
Essex	11/9	14/3
Birkenhead	11/6	11/9

FATTENING MASH.

F.O.R. LIVERPOOL	12/6	F.O.R. STAFFS ...	11/3
F.O.R. LONDON ...	12/9	F.O.R. HERTS ...	11/6
F.O.R. LONDON ...	12/0	F.O.R. BRADFORD	12/3
F.O.R. LEITH	11/0	F.O.R. BIRMINGHAM	——
F.O.R. LEITH ...	11/3	F.O.R. GREENOCK	12/9
F.O.R. LEICESTER	12/0	F.O.R. TEWKESBURY	12/0
F.O.R. KING'S LYNN	11/9	F.O.R. BOLTON ...	12/0
F.O.R. BELFAST ...	12/6	F.O.R. MIDDLESBRO.	12/0
F.O.R. BRISTOL ...	12/0	F.O.R. SUSSEX ...	12/6
F.O.R. SOUTHAMPTON	11/9	F.O.R. MID-SUSSEX	11/6
F.O.B. PLYMOUTH	11/9	F.O.R. SUSSEX (E.)	12/3
F.O.R. ABERDEEN	13/0	F.O.R. ESSEX ...	——
F.O.R. HARROGATE	12/9	F.O.R. BIRKENHEAD	11/6
F.O.R. GLASGOW	12/0		

CHICK FEEDS.

	No. 1.	No. 2
F.O.R. LIVERPOOL	17/0	14/9
F.O.R. LONDON	17/9	16/3
F.O.R. LONDON	17/0	15/0
F.O.R. LEITH	16/3	15/9
F.O.R. LEITH	16/3	14/3
F.O.R. LEICESTER	16/6	14/6
F.O.R. KING'S LYNN	17/0	15/0
F.O.R. BELFAST	18/0	16/9
F.O.R. BRISTOL	17/9	15/9
F.O.R. SOUTHAMPTON	17/3	15/3
F.O.R. PLYMOUTH	19/0	18/9
F.O.R. ABERDEEN	15/6	14/3
F.O.R. HARROGATE	17/6	15/3
F.O.R. GLASGOW	17/0	15/0
F.O.R. STAFFS	17/0	14/9
F.O.R. MID SUSSEX	17/3	15/3
F.O.R. SUSSEX (East)	17/6	15/6
F.O.R. SUSSEX	18/0	14/9

CHICK FEEDS—Continued.

F.O.R. BRADFORD	17/6	15/9
F.O.R. BIRMINGHAM	18/0	16/0
F.O.R. GREENOCK	18/3	15/0
F.O.R. TEWKESBURY	17/6	15/0
F.O.R. BOLTON	17/0	15/3
F.O.R. MIDDLESBROUGH	17/6	16/3
F.O.R. HERTS	16/6	15/6
F.O.R. ESSEX	17/9	15/9
F.O.R. BIRKENHEAD	17/3	15/3

	Per Cwt.	
Fish Meal (Pure White)	17/6	F.O.R. LONDON.
" " "	17/9	F.O.R. BRISTOL.
" " "	17/9	F.O.R. SWANSEA.
" " "	16/6	F.O.R. TYNEMOUTH.
" " "	17/9	F.O.R. GRIMSBY.
" " "	17/6	F.O.R. BRADFORD.
" " "	16/9	F.O.R. MIDDLESBRO'.
Special Fish Meal	15/0	F.O.R. LONDON.
Meat Meal	13/6	F.O.R. LONDON.

		Per Cwt.
MAIZE GRITS	F.O.R. LONDON	11/0
MAIZE GRITS	F.O.R. IPSWICH	11/0
S. G. OATS	F.O.R. LONDON	13/0
S. G. OATS	F.O.R. SUSSEX	12/6
S. G. OATS	F.O.R. BRISTOL	12/9
MAIZE GERM MEAL	F.O.R. LONDON	8/9
MAIZE GERM MEAL	F.O.R. IPSWICH	8/9
MEAT AND BONE MEAL	Carriage Paid	15/3
MEAT MEAL	Carriage Paid	15/9
ALFALFA	F.O.R. LONDON	11/9
"	F.O.R. BRISTOL	11/3
BONE FLOUR	F.O.R. LONDON	9/6

It would be of very great assistance if members when ordering would always

STATE STATION

they wish goods despatched to, also their

NEAREST DEPOT.

LANCASHIRE FEDERATION OF UTILITY POULTRY SOCIETIES LAYING COMPETITION.

Held at the Lancashire County Council Farm, Hutton, under the supervision of Mr. C. H. Dobbin, the County Poultry Instructor.

The competition ground is now open for inspection, after having been closed on account of Foot and Mouth Disease. The visiting days are Tuesday and Thursday, or the first Saturday in each month from 10 to 4 o'clock. Anyone wishing to pay a visit must get a permit from the Secretary of Agriculture, County Offices, Preston.

The winners of the Monthly Ribbons are as follows, viz.:—

Best Pen in each Section.—Messrs. H. Sutton and Sons, S. Street-Porter, H. Sutton andSons, W. Weardon and Sons.

Best Bird in each Section.—Messrs. H. Sutton and Sons, H. Marquis, J. Crompton, W. Wearden and Sons, J. W. Halstead, H. Ormrod.

The following are the leading positions in each section, showing the number of eggs and points respectively:—

Sixth Month's Report—4th March, 1926 to 31st March, 1926.

Section 1—White Leghorns—Large Breeders (Three Birds).—P. Williamson, 315, 1845; R. Beesley, 268, 1772; A. Heap, 347, 1673; H. Cook, 283, 1649; C. Morey, 292, 1512; A. C. Harrison, 270, 1462.

Section 2—Any other variety Light—Large Breeders (Three Birds).—F. C. Tomlinson 258, 1597; J. P. Willacy, 255, 1398; J. Ashworth (1 dead), 178, 1200; S. Street-Porter, 181, 1033; H. Marquis (1 dead), 132, 783; O. Rawlinson, 172, 766.

Section 3—White Wyandottes—Large Breeders (Three Birds).—H. Sutton and Sons, 355, 2190; Dr. J. E. Helm, 348, 2107; G. H. L. Armstrong, 299 1866; J. T. Finn, 296, 1699; J. Rainford (1 dead), 261, 1680; F. Holden, 275, 1577.

Section 4.—Any Other Variety Heavy—Large Breeders (Three Birds).—R. Moon and Sons, 324, 2117; J. Cobham, 326, 2034; J. Basnett, 330, 1920; T. B. Grice, 269, 1878; H. Booth, 290, 1855; J. Ashworth, 319, 1801.

Section 5—Light Breeds—Small Breeders (Single Bird).—J. W. Halstead, 125, 806; W. R. Robinson, 110, 686; J. Thwaites, 112, 650; H. West, 108 648; W. B. Grimshaw, 94, 546; H. West, 85, 518.

Section 6—Heavy Breeds—Small Breeders (Single Bird).—T. Plumb, 103, 633; G. A. Wolstenholme, 99, 621; C. Hargreaves, 102, 590; J. W. Pearson, 110, 555; Fort and Trippier, 79, 503; A. D. Walton, 93, 478.

EDITORIAL.—Continued.

POULTRY FARMERS AND INCOME TAX.

Messrs. A. E. Hamlin and Co., Honorary Solicitors to the S.P.B.A. and National Poultry Council, ask us to draw readers' attention to the following important notice to Poultry Farmers in reference to the necessity of an immediate objection to Assessment "D":—

IMMEDIATE OBJECTION TO ASSESSMENT 'D' NECESSARY.

Intimation has been received that, in spite of the decision of Jones v. Nuttall that poultry farmers could be assessed under the low fixed rate of Schedule 'B,' the Inland Revenue Authorities are still asking poultry farmers to fill up the Return Form for Assessment under Schedule 'D.'

Persons carrying on poultry farming pure and simple are entitled to be assessed under Schedule 'B,' and there is no necessity whatever for them to fill up the Schedule 'D' Return Form. Great care should be taken in perusing the official form sent in. Schedule 'D' Forms should be returned with the words "Not assessable under this Schedule as poultry farmers" written across the space headed "From Trade, Profession, or Vocation."

If by chance the assessment has actually been made, notice of appeal must be given within 21 days, as the Inland Revenue has endeavoured to adopt an attitude of refusal to return tax paid by poultry farmers under the wrongful interpretation of the Inland Revenue.

LEICESTERSHIRE COUNTY COUNCIL.

Sixth Monthly Report for the Period—March 8th to April 4th, 192

The more favourable weather conditions during the abov period have been greatly appreciated by the birds, and a co siderable increase in egg production has followed. During th four weeks 2,963 eggs were laid, bringing the total for the weeks to 13,305 eggs, which gives the excellent average of 93. eggs per bird. One bird laid every day during the month, an several have each laid 27 eggs in the 28 days. All the birds co tinue to keep in good health, and no case of disease has occurre since the trials commenced.

The leading pens in each section are given below:—

Figures are Eggs and Points respectively.

Section A. Light Breeds (Five Birds).—Mrs. R. Crawfor (W.L.), 540, 4709; Geo. Kyle (W.L.), 507, 4329; A. C. Moore (Bl. L. 440, 3692; Crawford and Dowell (W.L.), 442, 3659; H. B. Howe (Min.), 425, 3478; Geo. Price (W.L.), 401, 3387.

Section B. Heavy Breeds (Five Birds).—Geo. Ryle (W.W.), 53 4624; H. B. Howe (W.W.), 566, 4563; J. M. Salmon (R.I.R.), 49 4397; Mrs. E. Ball (R.I.R.), 486, 4305; J. M. Salmon (W.W.), 50 4188; S. Ryle (R.I.R.), 474, 4183.

Section C. Any Breed (Two Birds).—B. J. Buckler (R.I.R.), 23 2111; Miss Dear (R.I.R.), 193, 1754; S. Ryle (R.I.R), 188, 1728; Glover (W.L.), 191, 1701; W. H. Stevens (R.I.R.), 182, 1626; Hart (W.L.), 184, 1420

ANSWERS TO QUERIES—Continued.

S. E. A. (Co. Down) writes:—"Several of my Leghorns have gone bad recently. They are passing a wet, glitty, white substance, with clotted blood. Two of them died about two weeks ago, and within the last few days seven other cases have occurred. I have 220 birds, half Leghorns and half Wyandottes, running together on a 1½ acre field. The dry mash consists of 2 parts bran, 2 Sussex ground oats, 2 maize meal, 1 fish meal, 4 sharps and 28 lbs. of cracked maize scattered broadcast on the field."—I think at this season of the year, with Leghorns in full production that my correspondent's mash is too stimulating. He would be well advised to cut one part of the maize meal out of the mash, and feed in place of the cracked maize, good plump white oats as the grain. This alteration is only suggested during the flush season. It would appear that some of his birds are suffering from vent gleet or Cloacitis. Such birds should be isolated as the disease is infectious. If there are male birds running with the pullets, they should be removed at once. The discharge should be removed from the skin and feathers by washing with warm water, containing a two per cent. solution of Izal. Izal ointment could be rubbed into the skin of the affected part, and a two per cent. solution of Izal should also be injected into the cloaca twice daily. Some cases are very obstinate and where really bad it is advisable to destroy the bird.

Curious. (Chard). I have on many occasions shown in these columns the fallacy of applying oil or fats to eggs intended for incubation in vain imitation of the hen. The oil fills the pores of the shell and prevents the intake of oxygen or the escape of the carbon-dioxide. We have no evidence whatever that the oil found on eggs under a sitting hen is a "wise" provision of nature—it may be a purely accidental occurrence. No one has ever discovered or invented anything which, applied to the shell of the egg, will give better hatching results. One might as well argue that it was a wise provision of nature to give the Faverolle a beard or the Dorking a fifth toe.

H. L. (Ayrshire) is losing numbers of chicks, and a post mortem reveals "no active disease." The cause of the trouble is overfeeding during the first week of the chick's existence; a dry mash as concentrated as the sample sent should not have been always before the chicks, even after they are a month old, much less 48 hours. This over feeding has resulted in non-absorption of yolk with the resultant digestive trouble. My correspondent is advised to place the chicks on the following dry mash: 21 lbs. bran, 10 alfalfa, 35 middlings, 21 Sussex ground oats, 14 maize meal, 8 fish meal. (2) Chicks reared on dry mash, intended for fattening, should be trough-fed for 10 days, and then crammed; in the Wellingham experiments last year they responded splendidly to this method of finishing. (3) I do not think grit is necessary to assist in the grinding of the food. In my opinion the bird consumes it entirely for its mineral content, and therefore, I never advise the use of flint grit, but of limestone or oyster shell. I have reared quite successfully, and entirely intensively, 56 Buff Rock and Wyandotte chicks, which have not had grit in any form whatever, they are perfectly healthy and well developed, and are fed entirely on the S.P.B.A. mashes and grain. While advising the use of oyster shell and limestone grit, the use of hard flint grit I consider a useless waste of money, and in some respect it is absolutely injurious. (4) The hen is suffering from sour crop, which is usually caused by digestive disturbance. To treat, hold the bird head downwards, gently knead the crop, forcing the contents out through the beak, keep her without food for 24 hours, giving her two teaspoonfuls of salad oil, then feed sparingly on soft easily digested food—bread and milk would be best. (5) The Barnevelder lays a larger egg than the Croad Langshan, but the colour is not more attractive; I cannot say which is the more economic breed, as I have never kept the Barnvelder. The Croad is a very good layer, particularly in winter. (6) As to keeping the Wyandotte male another season, that would depend so much on the stock he breeds, his dam's record is excellent, but before you finally decide, see what his pullets do by the end of November. In no case would I mate him with his pullets, what is to be gained by it? (7) If you have plenty of green food, alfalfa is quite unnecessary. It depends on the quality of the oat; black oats, a good heavy sample, would give equally as good results as white. (8) I do not believe in giving healthy chicks tonics. If they flag, change the food and move them to fresh ground.

L. G. (Worcestershire) writes: "Some short time ago I wrote to a poultry farmer for some day old Buff Rocks, and the first lot all died off with the exception of two. The poultry farmer generously sent me another dozen, without charging, and when three of these also died, I sent their bodies to Major Saunders, who reported "Coccidiosis." Now what I want to ask you is this: 'If you were me, should you, first, do away with the whole lot, or, secondly, keep them for eggs only, and not for breeding, or, thirdly, keep them and breed from them, ignoring their past history?' They are not growing very fast, and they seem tiny for their age, but are quite well and lively. I cannot say that the remnant, or remaining half, have had the disease, definitely. I only know that 13 out of 24 of them had it, and the rest have either not suffered or else recovered, but they do not seem so sprightly as my others, and I do not want to make a bad initial error, as I am just starting with poultry again after a lapse of many years." Now in reply to my correspondent's three questions: Would I do away with the whole lot or keep them for eggs only, or keep them and breed from them, ignoring their past history. We must connect this with what he says lower down, that is, "That the chicks do not seem to be so sprightly as the others." My advice to him is to do away with the whole lot. If they, as he describes, have survived an attack of Coccidiosis, then the possibility of their being profitable egg producers is very small. Thirdly, if he keeps them at all he must remember that they will be carriers of the disease, and will be disseminating the trouble through the excrement—that is they will be infecting the soil, and further, they may be producing infected eggs. That, I think, answers his question 5. As for breeding from them. There is always a possibility, although there does seem to be some difference of opinion on this point, that hens which survive Coccidiosis and become carriers may infect their own eggs in their passage down the oviduct.

A. W. I. (Leicester) writes: "I meditate renting an acre of land adjoining my own; the owner will not agree to a lease for any fixed period beyond 12 months, and demands payment in advance. If I agree to this, how long notice must be given me to quit? I also intend to extend my present poultry fencing across and place houses on this acre. In the event of him selling the ground, or occupying it himself, can he claim the fencing and houses as fixtures? What form of agreement can I draw up to protect myself, and is it necessary to employ a solicitor for the job?"—In reply to A. W. I.'s queries: (1) If the tenancy is an Agricultural one it will be necessary to give one year's notice ending on the day on which the tenancy commenced. (2) With regard to the fencing, some agreement had better be come to between A. W. I. and his landlord whereby A. W. I.'s right to remove the same on the termination of the tenancy is admitted by the landlord. (3) With regard to the houses, they will be removable by A. W. I. provided they are not attached to the ground, i.e., resting on stones, timbers, or foundations, which are not dug in. It would certainly be better for A. W. I. to employ a solicitor to draw up the Agreement. (A. E. Hamlin and Co., Hon. Solicitors). **(LEGAL).**

G. V. L. (Derry) asks for an analysis of sprouted oats and whether I consider them to be an economical feed. The analysis is: Albuminoids 1.12, Carbohydrates and Fibre 29.55, Fats 1.20, Ash 1.62, Moisture 70.00. The vitamin "C" is created anew when germination has taken place two or three days. There are chemical changes during germination: the starch is turned into dextrine and sugar, and is much more digestible. It is more convenient and economical to feed the oats as a grain soon after germination begins than to wait until the shoots become green. (2) The chick with the inflated skin is suffering from Emphysema. It is a condition brought about by the rupture of organs containing air, such as the trachea, or the various air sacs and passages connecting between them. This causes an abnormal amount of air in the sub-cutaneous region. Relief may be given by pricking the skin, but such chicks rarely thrive.

E. S. (Milverton) has February R.I. Red chicks which are hanging fire: appetite poor, moping about, but no other symptoms except slight diarrhoea in one or two cases. They have wet mash twice daily consisting of bran, middlings, biscuit meal, ground oats and meat meal. E. S. should have sent samples: there may be some ingredient in the food which, although not so bad as to cause active trouble, will affect the birds' appetites and cause them to mope. He should try a complete change of food, give a mild dose of Epsom salts and move to fresh ground; see there is no crowding, and that the birds are free from insect life. The shell-less eggs are due to the feeding being too stimulating. As the birds are on range he may well reduce the fish meal by one half.

Wyandotte (Hitchin). I consider a good utility Wyandotte pullet should weigh 4½ lbs. minimum when coming into production: say at 5½ months to 6 months' old. You are wrong in thinking that size is against production: the reverse is the case: production is against size So many people seem to have the idea that a bird must be small to be a good layer: it is a great mistake. (2) In answer to your question as to whether chalk would be an efficient substitute for oyster shell. The answer is NO. It only contains 56 per cent. lime as against 98 per cent. of oyster shell. (3) If you breed from these rumpless Leghorns, a big percentage of the progeny will suffer from the same defect. (4) There is nothing you can give a hen to induce broodiness. The most successful way is to have the nest in a dark place and do not remove the eggs.

"Perches" (Suffolk) wishes to know the proper length of perch required for 100 birds and the distances apart, centre to centre, the perches should be. How many nest boxes should be provided, and whether there is any objection to having the nest boxes facing the light. In reply to his questions. Ten inches per bird perch room should be allowed, so for 100 birds he would require, roughly 85 feet. For heavy breeds 12 inches from centre to centre of perches will suffice, and one nest box to every four birds would be advisable. One to five is often used, but in the springtime this means a lot of broken eggs. The objection to placing the nest boxes facing the light is that the birds often see the eggs and this starts egg eating. This can be overcome, however, by nailing a piece of dark cloth across the front of the nest and slitting this up the middle. In answer to his further question, the best thing to keep away insect life from the nest boxes is to use small mesh wire on the bottom instead of boards, but if boards are used throw a handful of lime in occasionally.

D. R. H. (Cumberland) is anxious to get his pullets through the moult early in order to obtain winter eggs. I am not at all sure that this is advisable, and if very drastic methods are adopted it often results in the birds being so badly in under condition that the new feathers do not develop rapidly and so the object is defeated. The best thing my correspondent can do is to shut his birds up in a warm house and slightly reduce the feeding, watching carefully for the feathers to fall. Directly this occurs he must put them on the normal feed again. A good mash would be, for moulting birds: 1 lb. alfalfa meal, 4 good white middlings, 2 maize meal, 1 Sussex ground oats, ½ soya bean meal, ½ fish meal and 6 ounces of linseed meal. The birds should be sheltered from the hot sun and supplied with plenty of fresh green food. If the latter is available the alfalfa meal should be omitted and replaced with an equal part bran.

POST-MORTEMS.

G. F. R.—The post-mortem examination of the hen showed that the cause was peritonitis from extension of infection from the uterus, which was filled by a decomposing mass of egg concretions. It was a peculiar case, in that the concretion consisted of four distinct yolks, separated from one another by an interval of about two inches, but all attached to a tough fibrous cord that extended into the ovary.

M. E. L.—The post mortem examination of the hen showed that the cause was peritonitis, due to extension of infection from the uterus, in which was present a decomposed thin-shelled egg that had collapsed. Thin-shelled or shell-less eggs should be regarded as danger signals, showing that the birds that lay them are over stimulated, and such birds should at once be placed on a diet of grain and green food only for three or four days, or until the trouble corrects itself.

D. D.—The post mortem examination of the Exhibition W.L. Pullet showed that the cause was amyloid degeneration of the liver and dropsy. The cause of the liver condition is unknown, but the dropsy is dependant upon the liver condition, and caused by the interference with the portal circulation, which results in a damming back of the blood in the great abdominal veins, with consequent transudation of the fluids of the blood through their walls. The diarrhoea would be due to an effort of nature to restore equilibrium and to get rid of the fluid in the abdominal cavity, and also to the effects of the inhibited function of the liver due to its diseased condition. It is seldom that this trouble can be diagnosed during life, and the cause being unknown nothing can be done in the way of prevention, and it is also quite impossible to stay the degenerative process by any means of treatment at present at our disposal.

H. F. N. S.—The post mortem examination of the Light Sussex hen showed that apoplexy of the lungs had occurred; she was exceedingly fat, which would tend to weakening of the blood-vessels by fatty degeneration and also to a high blood-pressure which, if suddenly increased by anger, sudden fright, over-exertion, etc., would be conducive to apoplexy of some vital organ such as the lungs or brain.

APPLICANTS FOR MEMBERSHIP, S.P.B.A.

Warmington, Lady, Elmhurst, Great Missenden, Bucks.
Murdock, Rev., W., Manse of Culsalmond, Insch, Aberdeenshire.
Thornton, Mrs. P., Ryder's Wells House, Ringmer, Lewes.
Eastwood, L., Priests' House, Kettleshulme, Nr. Whaley Bridge.
Jeanes, H. W., "Grasmere," Newport Road, Godshill, I.O.W.
Lacey, Mrs. J., Moradabad, United Provinces, India.
Davies, H., "Scraptoft" Lodge, Scraptoft, Nr. Leicester.
Kirkby, G. I., Tharbies, Sawbridgeworth, Herts.
Campbell, J., Kerelaw, Stevenston, Ayrshire.
Lucas, C., 21, The Dale, Letchworth, Herts.
White Bros., Court Farm, Doniford, Watchet, Som.
White, P., 29, Milton Road, East Sheen, S.W. 14.
Bam, Lady Stewart, Laurencetown House, Northwood, Middlesex.
McKenzie, Capt. C., Kilcronaghan, Tobermore, Co. Derry, Ireland.
Barton, Mrs. K., The Bungalow, Luddesdowne Court, Nr. Gravesend.
Wright, R. A., "Hazledene," Toms Lane, King's Langley, Herts.
Setterfield, H. T., Eden Hall, Minster, Thanet.
Mellor, H., 22, Busk Road, Chadderton, Oldham, Lancs.
Stanley, D. Nathaniel, 71, Small Holding, Little Woodcote, Wallington, Surrey.
Mitchell, H., 47, Gordon Road, Southall, Middlesex.
White, F. G., "Beverstone," Primrose Hill, Widmer End, Higher Wycombe, Bucks.
Acham, R., Trevone, Grove Road, Havant, Hants.
Hemmings, K. R., Dale Close, Barkly, Leicester.
Rayment, N. H., 15, Rye Street, Bishop's Stortford, Herts.
Prebble, C. H., Green Lane, Hucclecote, Glos.
Russell, A., Dunchurch, Rugby.
Rodocanachi, P., Dunchurch, Rugby.

CHESHIRE COUNTY COUNCIL EGG-LAYING COMPETITION 1925-26—SINGLE BIRD TEST.

REPORT ON RESULTS FOR SIXTH MONTH (4th March to 31st March).

The flock average for the month is 18.7 eggs per bird. The average for the light breeds is 19.0, and for the heavy breeds 18.4 per bird. Three birds in the heavy breed section did not lay. Four birds were broody and one sick.

Figures are eggs for period and total to date respectively:—

SUMMARY OF LEADING PENS.

Light Breeds.—A. Dixon (W.L.), 23, 121; Mrs. N. Viney (W.L.), 19, 113; A. D. Tobler (W.L.), 15, 110; Campbel Sheen (W.L.), 16, 120; Mrs. N. Viney (W.L.), 20, 116; Mrs. E. Johnson (W.L.), 19, 111

Heavy Breeds.—Mrs. N. Viney (W.W.), 14, 117; E. Paterson (B. Orp.), 16, 109; Mrs. Mortimer (W.W.) 23, 118; J. Hignett (W.W.), 22, 102; W. Travis (W.W.), 17, 101; J. Riley (W.W.), 16, 100.

"The Hatcheries,"
Thursmaston, Leicester.
26th April, 1926.

Dear Sir,—The Chick food and Mash sent some time ago was in every way satisfactory, and much better quality that we previously had been able to obtain.

Yours faithfully,
(Signed) W. FOULDS.

HARPER-ADAMS' AGRICULTURAL COLLEGE, NEWPORT, SALOP.

POULTRY LAYING TRIALS, 1925-1926.

Report for the Fifth Period.

The fifth period of the trials (from 21st February to 20th March) shows a material increase in egg production, a total of 29,168 eggs having been recorded as produced by all competing birds in the Poultry Sections, compared with 24,441 in the previous period. The individual average has increased from 16.6 to 19.8 eggs per bird. A slightly higher increase is to be noted in the Duck Section, the individual average for the period being 23.3 eggs per bird against 19.8 in the fourth period.

The weather conditions showed a marked improvement, a very low aggregate rainfall having been recorded.

The following are the leading positions, which have not varied much from the previous period:—

SUMMARY OF THE LEADING PENS.
CHAMPIONSHIP TRIALS.

Section 1. Light Breeds.—Tom Barron (W.L.), Catforth, 915 eggs; Frank Snowden (W.L.), Keighley), 915; G. B. Metcalfe (W.L.), Lechlade, 922; F. A. Welch (W.L.), Cheltenham, 878.

Section 2. Heavy Breeds.—E. Watson (W.W.), Colne, 999 eggs; Tom Barron (W.W.), Catforth, 924; G. B. Metcalf (R.I.R.), Lechlade, 864; Capt. D. W. Gunston, M.P. (W.W.), Reading, 874.

SMALL FLOCK TRIALS.

Section 1. White Leghorns.—Miss Helen Baylis, Stratford-on-Avon, 560 eggs; Lieut.-Colonel A. G. Eden, Bracken Cranswick, 524; Capt. J. Thompson, Shrewsbury, 514; The Worcestershire P.F., Tardebigge, 527; G. Keith Simmons, Honiton, 522.

Section 2. White Wyandottes.—Dr. A. Everson Harrisson, Daventry, 619 eggs; G. Keith Simmons, Honiton, 606; Frank Snowden, Keighley, 577; C. E. D. W. Freeman, Anglesey, 559; S. and T. Greenall, Grantham, 565.

Section 3. Rhode Island Reds.—C. W. S., Ltd. Manchester, 581 eggs; Miss C. E. Roads, Bletchley, 548; R. Green, Preston, 534; W. Mayor, Leyland, 518; Kingston Bagpuize P. Farm, Abingdon, Berks, 516.

Section 4. Light Sussex.—F. R. Welch, Bewdley, 592 eggs; F. Rossall Sandford, Shrewsbury, 549; A. Hughes, Malpas, 545; E. Clough, Uplyme, near Lyme Regis, 545; Capt. A. A. Plimpton, Beverley, 537.

Section 5. Black Leghorns.—W. A. Lansley, Whitchurch, 505 eggs; R. A. Fawssett, New Radnor, 495; R. Rodwell, Nelson, 476; S. Street-Porter, Ely, 448.

Section 6. Any Other Light Breed.—W. Hamnett (An), Blackpool, 551 eggs; H. Lynden Lemon (Bl. Br.), Devizes, 497; Dr. R. B. Reed (An.), Colchester, 489; C. W. S., Ltd., Manchester (An.), 463.

Section 7. Any Other Heavy Breed.—Miss P. Mills (Bf R.), Bishop's Castle, 588 eggs; Capt. A. A. Plimpton (Bf. Rks.), Beverley, 553; Mrs. Drew (Bf. Rks.) Basingstoke, 531; F. R. Welch (Bf. Rks.), Bewdley, 519.

SINGLE BIRD TRIALS.

Section 1. White Leghorns.—F. G. Mansell, Aldridge, 112 eggs; Chivers and Sons, Ltd., Histon, 102; The Misses Ransford, Pensford, 102.

Section 2. White Wyandottes.—Frank Snowden, Keighley, 117 eggs; S. and T. Greenall, Grantham, 113; Tom Barron, Catforth, 110.

Section 3. Any Other Light Breed.—K. A. Crawford (W.B.), Dilham, 101 eggs; W. H. A. Heald (B.L.), Hellingly, 86.

Section 4. Any Other Heavy Breed.—A. Hughes (L.S.), Malpas, 129 eggs; Miss M. Lawrence (R.I.R.), Glos., 119; Tom Barron (R.I.R.), Catforth, 109.

Duck Section.—S. E. S. Burnett (K.-C.), Arbroath, 640 eggs; R. A. and A. M. Johnson (W.R.), Chalford, 632; Wilson Beattie (K.-C.), Rothersthorpe, 623; O. C. Brown (K.-C.), Appleby. Lincs, 604; Miss Harrison Bell (W.R.), Welwyn, Herts, 593.

BOARD OF AGRICULTURE FOR SCOTLAND.

EGG LAYING TEST, 1925-26, AT SEAFIELD, ROSLIN, MIDLOTHIAN.

REPORT FOR THE SIXTH PERIOD—4th to 31st MARCH. 1926.

During the sixth period there was a recurrence of wintry weather. Snow, sleet, rain, and blustering winds from the N.E., with very little sunshine combined to make conditions unfavourable to high egg production. The health of the birds was good. Two pullets and 8 ducks were in moult, while 13 pullets were broody during the period The total number of eggs produced in the four weeks was 10,219, an average of 20.12 per bird, as compared with 8395 and an average of 16.39 last month. The average since the beginning of the Test now stands at 79. The highest individual record for the month was 27 eggs, all first grade, laid by pullet No 332 (White Wyandotte), belonging to Mr. R. A. Oliver (pen No. 56). The second highest was 26 eggs, laid by each of the following four pullets.

No. 429 (pen No. 72) Rhode Island, Messrs. F. and A. H Sanders.

No. 553 (pen No. 93), Buff Rocks, Miss Harrison Bell.

No. 132 (pen No. 22), White Leghorn, Capt. J. F. H. Houldsworth.

No. 594 (pen No. 99), Light Sussex, White Heather Poultry Farm.

The eggs laid by the two first-mentioned were all of the first grade. Miss. Harrison Bell's pen of Buff Rocks, No. 93, still holds first place in the Test with a score value of 578.

Egg Production of Leading Pens at end of Sixth Period, 31st March, 1926.

Figures are eggs and points respectively:—

Section No. 1, White Leghorns.—J. B. V. and W. Cummins, Penicuik, 505, 499; J. Prentice, Uddingston, 600, 499; T. Baillie, Bute, 510, 485.

Section No. 2, White Wyandottes.—A. Thomson, Avonbridge, 574, 567; Lady V. Astor, Meikloour, 608, 549.

Section No. 3, Rhode Island Reds.—Mrs. M. Logan, West Kilbride, 555, 554; I. Cooper, Carnwath, 547, 546.

Section No. 4, Non-Sitters (other than White Leghorns).—J. Huntley and Son, Coldstream, 599, 500; White Heather Poultry Farm, Tullibody, 474, 466.

Section No. 5, Sitters (other than in 2 and 3).—Miss Harrison Bell, Welwyn, 632, 578; the Misses Davidson and Chisholm, Gollanfield, 655, 546.,

Section No. 6, Ducks.—G. H. H. Simmons, Brimscombe, Glos., 525, 460; O. C. Brown, Scunthorpe, Lincs., 461, 424.

THE GLOUCESTERSHIRE EGG-LAYING TEST.

Report for Sixth Month Ended March 26th.

During the month 6,270 eggs have been collected, against 5,247 the previous month, giving a total of 27,823 for the six months, and an average of 87.2 eggs per pullet. For comparison, the average for this period last year was 84.1.

As an item of interest it will be noticed that the Buff Rocks lead over all other breeds.

The weather during the period under review has been remarkably dry, with cold intervals, and the health of the birds is good. The method of scoring is the same as for last month.

Section A. (1). White Wyandotte (Professional).—G. W. H. Roberts 2714 pts.; T. L. Davies, 2647; H. W. Fowles, 2326; P. M. Hinton, 2286; H. Ludlow Hewitt, 2241; H. Bennett, 2010.

Section A. (2). A.O.V. Heavy Breed (Professional).—C. D. Pratt (Bf Rk), 2775 pts.; G. H. H. Simmons (Bf Rk), 2560; G. B. Metcalfe (R.I.R.), 2455; D. K. Nuttall (R.I.R), 2407; Miss M. Lawrence (Bf Rk), 2381; M. C. Beale (R.I.R.), 2307.

Section A. (3). White Leghorn. (Professional).—Sherborne Park P.F. (36), 2341; G. W. H. Roberts, 2279; Sherborne Park P.F. (1), 2235; Miss H. Baylis, 2178; J. L. Brown, 2099; Major J. G. Dugdale, 2037.

Section A. (4). A.O.V. Light Breed (Professional).—Capt. W. Anderson (An.), 2209 pts.; J. L. Brown (An.), 1989; F. W. Clifford (B.L.), 1828; Churchdown P.F. (An.), 1613; E. S. Colley (Ex. Leg.), 1475.

Section B. (1). A.V. Heavy Breed (Confined to owners of not more than 50 laying head).—G. D. Bond (W.W.), 2657 pts.; E. A. Craft (L.S.), 2472; W. P. Merrett (W.W.), 2276; E. G. Brown (W.W.), 1670; Miss M. Clarke (R.I.R.), 1368; J. C. Dee (R.I.R.), 1321.

Section B. (2). A.V. Light Breed. (Confined to owners of not more than 50 laying head).—E. G. Brown (W.L.), 1555 pts.; C. E. Skirten (W.L.), 1430; F. E. Fowler (B.L.), 1332.

Pen Duck Section. (Four ducks to a pen).—G. H. H. Simmons (K.C.), 366 pts.; S. J. Phillips (K.C.), 340; Major J. G. Dugdale (K.C.), 333; Mrs. H. L. Hanks (K.C.), 296; G. B. Young (K.C.), 295; F. W. Clifford (K.C.), 224.

SINGLE PEN SECTION.

Section 1. White Leghorns.—L. Grist (14), 605; A. Daunton, 487; Fielding Smith (4), 464; Lieut.-Colonel Hancock, 432; A. A. Paul, 406; Fielding Smith (45), 395.

Section 2. White Wyandotte.—H. W. Stephens (30), 569 pts.; Miss H. Baylis, 551; L. Grist, 510; A. W. Harrison, 482; Philip Clapham, 468; F. A. Welch, 455.

Section 3. Rhode Island Red.—F. A. Welch, 536 pts.; M. C. Beale, 505; Wood and Bacon, 373; A. Daunton (46), 343; W. Bingle, 326; Miss M. Lawrence, 315.

Section 4. A.O.V. Light Breed.—R. Sysum (B.L.), 426 pts.: White and Martyn (B.L.), 298; Churchdown P.P.F. (B.L.), 232; Miss N. Townsend (B.L.), 127.

Section 5. A.O.V. Heavy Breed.—Mrs. E. Weinholt (Aus. Orp.), 503; G. H. Simmons (Bf. Rk.), 495; F. R. Welch (L.S.), 491; Philip Clapham (B.R.), 453; G. B. Young (L.S.), 429; J. G. Herbert (B'Veld), 420.

Section 6. Ducks.—H. L. Hanks, 161 pts.; Major J. G. Dugdale (3), 151; H. W. Fowles (2), 135; Major J. G. Dugdale (4), 130; F. W. Clifford, 124; Mr. and Mrs. Streatfeild, 120.

Correspondence—Continued

S. P. L. R. SCHEME.

To the Editor of "Eggs."

Sir,—In "Eggs," April 14th, an unfortunate man, called W.B., stated that after trying stock from various poultry breeders he has had very little but evil results, and that all breeders are tarred with the same brush, tar being taken at the first coat of the proverbial Black Sheep. Surely there are other breeders besides myself who can, and must, refute such a statement. My speciality is the productions of chicks at £5 per 100 for the commercial egg producers. My customers return regularly, the chicks are carefully hatched, the temperature at 103 throughout, when well on their legs they are placed in boxes which have been aired with the hat and felts inside them. As the boxes, for sake of accommodation, are kept on the incubators this is easily done. All stock are sound, healthy, and trapnested, and great care is taken with size of egg.

I fear W.B. has come amongst the few men who have weak stock. I voice only the cry of the many breeders who have real sound stuff. I offer him sympathy, and advise him first to inspect the stock before buying chicks, generally in the parents lies the evil. "AGRICOLA."

To the Editor of "Eggs."

Dear Sir,—As one who has had some little experience of stock bought on laying test performance, I entirely dissent from the views expressed by your correspondent Mr. Tomlinson. Five or six birds *selected* for a laying test are not a fair indication of the average of the stock carried by the breeder. There is no guarantee whatever that the buyer actually gets the eggs he pays for. Two years ago I bought from a prominent breeder and test winner, 100 eggs from his best pen, guaranteed to contain his competition winners, for the purpose of hatching stock cockerels. The eggs arrived, they were small and many were mis-shapen, very few of them scaled two ounces, and I was altogether disgusted with the deal. The breeder's reply to my complaint did not console me. He "regretted that I *thought* I had cause for dissatisfaction and would give his personal attention to my future orders." Two cockerels bought from another equally prominent breeder and winner, arrived, one with a breast-bone like a corkscrew, the other in-kneed, with "floppy" comb—two weeds, in fact. Some acrimonious correspondence ensued, the birds were returned, and my money refunded after deductions for carriage, etc.

No, Sir, the Laying competitions have a value no doubt for the successful competitor, but they offer no guarantee to the buyer; my experience is not an isolated one: there are doubtless many other whose experience has been similar to my own.

The tests will not help the buyer until we have guarantees.

Yours faithfully,

"SUFFERER."

BROKEN YOLKS.

To the Editor of "Eggs."

Dear Sir—I was pleased to see the question of "Broken Yolks" raised in your last issue of that interesting and valuable paper "EGGS."

I have suffered loss from this cause in every one of my hatches this season, and must admit defeat in trying to find the cause.

My first hatch (Gloucester machine) the temperature was first up and then down, so I was not surprised to find many broken yolks upon testing. The next hatch was just as steady as the other was irregular, maintaining 103 degrees from the 1st to 17th day, when it showed the usual inclination to rise, but when I tested on the 17th day the abnormal number of broken yolks was still present, and it has been so throughout every hatch.

Like your correspondent I am inclined to offer Aeroplanes as the solution, as they pass over here regularly.

I should be pleased if "EGGS" or its readers could supply a solution, and if possible a remedy.

Yours faithfully,

COLIN LEE.

MR. NORMAN PRESTON'S LETTER.

To the Editor of "Eggs."

Dear Sir,—May I put forward an appreciation of Mr. Norman Preston's letter? It is certain that I am not alone in being eager for more information from such a source.

If we can bring in the non-returnable crate and by consistent quality, induce sale on sight of a trade-mark it will be a big stride forward.

Yours truly,

B. SCOTT-FOXWELL.

GAPES, ETC.

To the Editor of "Eggs."

Dear Sir,—Re your answer to "Gapes—Millwest." I used a one per cent. solution of sulphuric acid last autumn, dressing a plot of about half an acre. All bushes were cut away, leaves raked off, and the ground well soaked. This season I decided to test it with a small batch, so put out a hen with twelve chicks, and was very disappointed to find them suffering from gapes at about ten days old, and all twelve chicks were dead in little over three weeks. I might mention that the acid was strong enough to kill the earth worms by thousands.

The piece of ground on which I am rearing this season was heavily limed last year, and has never had chickens on before, except perhaps a stray adult bird or two, yet I have gapes there, but so far my losses have been comparatively light. I propose liming this ground again as soon as the chickens are off it.

I am rearing about three hundred chicks intensively, using your Wellingham formula, and, as nearly as possible, following the advice you give in the Register.

One batch of a hundred in a 10 ft. x 10 ft. semi-intensive laying house are now almost six weeks old, and look very well, though a little pale the last day or two. I am using cod liver oil, and have had no leg weakness. In a few days I expect to remove the cockerels, and propose running on the pullets until ten or twelve weeks old, when I shall run them out on the grass. Losses so far, from natural causes, have been about 4 per cent.

"Eggs" has been a great help to me, and I must thank you for the advice you have so kindly given me on several occasions.

Yours faithfully,
JULIAN H. LONG.

WORCESTERSHIRE LAYING TEST.

REPORT FOR SIXTH MONTH—LEADING PENS

Section 1—White Leghorns.—Worcester P.F., 523 pts.; W. A. Pound, 587; F. R. Welch, 501; Col. Hancock, D.S.O., 455.

Section 2—White Wyandottes.—W. F. Morris, 574 pts.; G. E Handley, 564; Mrs. Edmondson, 554; W. H. Hawkes 477.

Section 3—A.O.V. Light Breed.—R. M. Voce (B.L.), 425 pts.; Capt S Churchill (Bl. B.), 419; B. Lloyd (B L.), 382; Capt. S. Churchill (Ex. L.), 367.

Section 4—A.O.V. Heavy Breed.—E. P. Owen (B.R.), 514 pts.; F. R. Welch (L.S.), 502; W. P. Drew (L.S.), 472; F. H. Collins (L.S.), 425.

Section 5—A.V. Heavy (Single Bird).—J. Norledge, (L.S.), 121 pts.; Mrs. E. Owen (W.W.), 118; Mrs. E. Owen (W.W.), 118; F. Heydon (W.W.), 117.

Section 6—A.V. Light (Single Bird).—M. Butter (W.L.), 116 pts.; Capt. Boyle (W.L.), 102; Major R. Lake (W.L.), 75; F. Heydon (W.L.), 71.

Section 7—A.V. Pure-Bred Duck (Single).—Worcester P.F. (K.C.), 94 pts.; J. E. Loxley (K.C.), 69; Miss Hancock (K.C.), 65; Malvern Ped. P.F. (K.C.) 59.

TESTIMONIALS.

23, Whatmough Street, Rochdale.
22nd April, 1926.

Dear Sir,—Five bags of food to hand, and it is good. Oats the best I have seen for years. The mashes are cheap.

Yours truly,
(Signed) WILLIAM BURTON.

Port Divorwic, North Wales.
26th April, 1926.

Dear Sir,—I have 200 chicks, different ages, reared only on No. 1 Chick Feed, and Uveco Chick Feed mixed with sharps and Sussex ground oats, also from Liverpool, and they are all healthy and strong. It is not often you get good things cheap. No wonder the Food Purchase Scheme is a success.

Yours truly,
(Signed) HUGH OWEN.

Archerton,
Postbridge, Devon.

Dear Mr. Newman,—Bravo, S.P.B.A.! You always do the right thing at the right minute. Your foods are splendid, and I am feeding thirty hens for less than it cost me to feed twenty last season, when I had to buy locally.

Yours sincerely,
(Signed) EDITH M. BENNET.

Caton, Lancaster.

Dear Sir,—I am now thinking of getting my grain feeds through the Food Purchase Scheme, as I find the mashes I have had through the system so very satisfactory, and I am sure I shall save a lot in time and money.

Yours very truly,
(Signed) Miss K. H. PALEY.

March 7th, 1926.

171, Victoria Street,
Newton Moor, Hyde,
12th April, 1926.

Dear Sir,—Thanks very much for the laying and chick mash, with which I am highly satisfied. I have been paying 16s. per cwt. for rubbish compared with the mashes I received from Liverpool.

Yours faithfully,
(Signed) J. E. MARROW.

Windmill Lane, Balsall Common,
Warwickshire.
28th March, 1926.

Dear Sir,

I have received the five cwt. of Layer's mash from Birmingham. The quality is excellent.

Yours faithfully,
(signed) AUBREY S. HARRIS.

Whitmore, Chittlehambolt, Umberleigh, N. Devon.
14th April, 1926.

Dear Mr. Newman,—Your laying mash has so increased the ducks' eggs, and added to the size of the hens' that I think it will be wiser to continue it.

Yours truly,
(Signed) S. F. MALCOLM.

Muir of Thorn, Bankfoot,
Perthshire.

Dear Sir,

The chicks are doing exceptionally well on the S.P.B.A. Mash and Chick Feed, and always look as if they are enjoying it.

Yours faithfully,
(signed) (Mrs.) D. DRUMMOND.

Carisbrooke Poultry Farm, Portishead.
16th March, 1926.

Dear Sir,

I must thank also you for prompt attention to order. I am more than satisfied with the mashes I have received from you to date.

Yours faithfully,
(signed) R. STUART GUNSON.

239, Gammons Lane,
Watford, Herts.

Dear Sir,

I am much obliged for the prompt attention you have always given to my orders, and consider the Food Purchase Scheme of inestimable advantage to all poultry keepers, both as regards quality and price.

Yours faithfully,
(signed) H. W. SMALLMAN.

23, Whatmough Street,
Rochdale, Lancs.,
13th April, 1926.

Mr. Newman. Dear Sir,—I sincerely thank you for list of the Bolton firm; their laying mash is A1. Wish I had heard earlier. Also Chick Feed, equal to a 24s. lot I got.

Yours faithfully,
(Signed) W. BURTON.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 30th APRIL, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is in small supply and again dearer, the average quotation being 13s. 2d. per cwt., as compared with 12s. 9d. last week. Imported is in fair demand and realises higher prices, except at Hull, where good quantities are available at easier figures. A fair trade is passing in feeding barley, and both home-grown and imported descriptions generally sell at increased prices. Oats are in small supply, and with a fair demand quotations are mostly slightly higher on the week. English white averaging 9s. 11d. and black 9s. 6d. per cwt. A moderate trade is reported for maize, which is slightly cheaper at most centres.

Millers' offals are in fair request, and recent prices are firmly maintained, except at London, where bran is reduced 5s., and at Bristol, where rice bran is also cheaper by 5s. per ton. Meals meet with rather more inquiry, and barley meal is dearer at all markets, increases of 5s. to 10s. per ton being recorded. Trade for oil cakes shows some improvement, and cotton seed cake is quoted at higher prices at London and Hull, but linseed cake generally shows a reduction of 5s. per ton on the week.

MILLERS' OFFALS.—Bran (British): Bristol, £6 17s; Hull, £6 7s; Liverpool, £7; London, £6 2s. Broad Bran: Hull, £7 17s; London, £7 10s. Middlings—Fine (Imported): London, £7 15s; Coarse (British). Bristol, £7 15s; Hull, £7 5s; Liverpool, £7; London, £6 17s. Pollards (Imported): Bristol, £6 5s; Hull, £5 10s; Liverpool, £5 7s; London, £5 17s. Rice Bran: Bristol, £6 10s; Liverpool, £6 10s; London, £6. MEAL.—Barley Meal: Bristol, £10; Hull, £9 12s; London, £10. Maize Meal: Bristol, £9 15s; Hull, £8 15s; Liverpool, £8 17s; London £8 15s. Maize Meal (S. African): Bristol, £8 7s; Hull, £8 5s; Liverpool, £7 17s; London, £8. Maize Germ Meal: Hull, £8 5s; London, £8. Maize Gluten Feed: Bristol, £10 5s; London, £9 2s. Maize Cooked Flake: Hull, £10 10s; Liverpool, £10 7s. Locust Bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9 5s. Bean Meal: Bristol, £13; Hull, £11 12s; London, £12 5s. Fish Meal: Bristol, £20 10s; Hull, £18 10s; Liverpool, £18 10s; London, £18.

EGGS AND DEAD POULTRY.

Eggs were the turn easier at the close of the market following the slight improvement reported last week. Dead fowls continue to harden in price.

Week-end Prices—Eggs (per 120). English, 13s 0d, 11s 9d; Irish (Extra Selected), 13s 0d, 12s 6d; Irish (Selected): 12s 0d, 11s 6d; Danish (18 lb.), 14s 6d, 14s 3d; Danish (15½ lb.), 12s 3d, 12s 0d; Dutch, brown, 13s 9d, 13s 3d; Dutch, mixed, 12s 9d, 12s 3d; French (Normandy brown), 13s 9d, 13s 0d; French (Normandy mixed), 12s 3d, 11s 6d; French (Brittany), 10s 3d, 9s 9d; Belgian, 12s 3d, 11s 6d; Egyptiam, 7s 6d; Polish, 9s 3d, 8s 9d.

Dead Poultry (per lb.): Fowls—Surrey, 2s 4d, 1s 8d; Irish, 1s 8d, 1s 4d; Others, 2s 1d, 1s 8d. Ducks, 2s 9d, 2s 1d.

EGGS.

Per Doz.—Ashford: First, 1s 4d; Second, 1s 2½d. Birmingham: First 1s 3d; Second, 1s 1¾d. Bridgwater: First, 1s 4½d; Second, 1s 3d. Chelmsford: First, 1s 3½d; Second, 1s 2½d. Colchester: First, 1s 4¼d; Second, 1s 2½d. Doncaster: First, 1s 5d; Second, 1s 4d. Dorchester: First, 1s 3¼d; Second, 1s 2¾d. Exeter: First, 1s 1d; Second, 1s 0d. Hereford: First, 1s 1d; Second, 1s 0d. King's Lynn. First, 1s 4d; Second, 1s 2d. Llandilo: First 1s 0¼d. Mold: First, 1s 1d; Second, 1s 0d. Newport (Mon.): First, 1s 2d; Second, 1s 1d. Norwich: First, 1s 3½d; Second, 1s 2½d. Oswestry: First, 1s 1½d; Second, 1s 1d. Penzance: First, 1s 0d; Second, 11d. Saffron Walden: First, 1s 4¾d; Second, 1s 2½d. St. Ives (Hunts): First 1s 5d; Second, 1s 3d. Salisbury: First, 1s 3d; Second, 1s 2d. Skipton: First, 1s 6d. Swindon: First, 1s 3½d; Second, 1s 2d. Truro: First, 1s 1d. Welshpool: First, 1s 2d; Second, 1s 1d. *Carlisle: First, 1s 3d; Second, 1s 1d. *Derby: First, 1s 4d. *Ipswich: First, 1s 4d; Second, 1s 0d. *Lincoln: First, 1s 3d. *Shrewsbury: First, 1s 2d; Second, 1s 0d. *York: First, 1s 5d.

FOWLS.

Per lb.—Birmingham: First, 1s 8d; Second, 10d. Doncaster: First, †6s 0d; Second, †5s 0d. Exeter: First, 1s 8d; Second, 1s 4d. Hereford: First, 1s 8d; Second, 1s 6d. Llandilo: First, 1s 10d; Second, 1s 4d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First 1s 7d. Welshpool: First, 1s 9d; Second, 1s 7d. *Derby: First, †6s 3d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 1s 6d; Second, 1s 3d.

DUCKS.

Per lb.—Exeter: First, 1s 8d; Second, 1s 4d. *Ipswich: First, 1s 4d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, May 5th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

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All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.

We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, MAY 19th, 1926.

Editorial.

DEAD-IN-SHELL

This may be viewed as somewhat in the nature of an annual report. For the third year in succession we have examined over 2,000 unhatched eggs, which have been sent us by readers and members of the S.P.B.A. It is not a pleasant investigation, and matters are not improved by the very careless way in which many of the eggs are packed, and the persistence with which many of the senders, in spite of repeated warnings, will send through the post. Another season we shall have no alternative but to refuse to examine eggs which are sent in this way.

It is disappointing to have to admit that, after examining this number of eggs, we are not able to throw any further light on the dead-in-shell problem. Indeed, one is led to ask, whether the problem is such a big one as we have imagined all these years? That is to say, is the average percentage of unhatched eggs in the incubator really so much higher than under the hen? And we have some reason to believe that the difference is not so wide as is generally believed, and that, even admitting it to be so, it is not altogether a matter of Hen v. Incubator.

We must first state that, where we were able to get the necessary information, we found, on comparing notes, that travelled eggs almost invariably showed considerably lower hatchability than untravelled. These figures must not be regarded as absolutely accurate, but roughly we may say the home eggs have an advantage of over ten per cent. This suggests that breeders may find it worth their while to consider better methods of sending valuable eggs for incubation, particularly the possibility of packing on their sides as compared with on end.

Now when we draw a comparison between hen and incubator, there are certain factors which we must take into consideration. There is first the fact that the eggs we place under hens are usually from special breeders' small pens, which are carefully selected, necessarily much more so than where large flocks are used, and there is more care exercised in the selection of the eggs themselves. The small number of eggs placed under a hen are more uniform in every way than those which are placed in an incubator. We shall not find the variation in size and shape, but more particularly, we do not find the wide variation in texture of shell, which has a most important bearing on the hatchability of the egg, and possibly on the vitality of the chick. The eggs under the hen, too, will be usually fresher than those placed in the incubator. Still we were much surprised, when visiting Mr. Toovey's farm, to find the percentage of chicks hatched on a *large* scale under hens was little or no higher than the average hatch on a large farm with incubators. This was the first real opportunity we had had of comparing hatching on a large scale under hens, with incubator hatching, and the results rather astonished us.

We are dealing with what we call the "dead-in-shell" problem. It would be possibly wiser if we consider it as the problem of the *unhatched egg*, for we may say, that with at least 55 to 60 per cent. of the eggs examined, the embryo had not developed beyond the tenth day.

Now we think it will be agreed that, as far as this 55 to 60 per cent. is concerned, it can hardly be due to conditions within the incubator, with the possible exception of temperature. At that stage the embryo is scarcely likely to suffer from lack of oxygen or excess of carbon-dioxide.

Arguing on these lines, we are bound to assume that the far larger proportion of these eggs fail to hatch because the stock birds are at fault, and this assumption is strengthened because we undoubtedly find that in unfavourable climatic conditions there is a noticeable increase in the percentage of unhatched eggs. In three cases, losses were possibly due to the escape of gas into the incubator, hatches being in two cases less that 10 per cent., and in another less than 15 per cent., but these have no bearing on the subject. Where stock birds are at fault, we find generally, but not always, a high percentage of clears: more frequently, that the germ has perished at a very early stage.

Dealing with chicks which had developed to the 17th day, but had failed to hatch, we found (1) that in comparatively few cases lack of moisture was the cause. (2) In the majority of these there was reason to suspect stale or badly stored eggs. There was one marked feature which we think deserves more attention; that was, in a very high percentage of these eggs, the shell was remarkably hard and of close texture; the brittleness of the shell which is characteristic of normal eggs at this stage of incubation was not evident, and it was noticed that there was far less evaporation than is usually the case.

The percentage of chicks which fail to hatch after "pipping" does not appear to be very high, but what explanation is there for the failure to hatch? Is it due to an excess of carbon dioxide during the actual hatching, and the presence of a number of newly-hatched chicks in the egg drawer? That we cannot answer definitely; it is just probable.

We have found that a far higher percentage of chicks do not hatch as a result of an excess of moisture, than from a deficiency of it. Yet the percentage of dead-in-shell from this cause was not so great as one would expect, and it is due to our readers for us to say frankly, that in a great proportion of cases, where the chicks were fully developed or nearly so, we were not able to say why they did not hatch, and to suggest that further investigations should be made in a laboratory.

It is interesting and curious to relate that many readers reported poor hatchability, but chicks were strong and vigorous, and rearing losses small. On the other hand, we had excellent hatching reported on many occasions, but chicks weakly and rearing poor.

High temperatures on more than one occasion caused premature hatching, with a very heavy mortality. Five lots of eggs were sent, every one of which was infertile, one box of 60 eggs was included in these. One reader had "buttered" her eggs in an endeavour to imitate hen oil, with disastrous results.

In conclusion, we feel that there is not much wrong with the best of the present day types of incubators, and the real solution lies in the better selection of stock and eggs, and in general management, and the running of the incubator to the local conditions, rather than following any hard and fast rules.

The following is of interest, as it confirms in many respects our opinion that a laboratory test is necessary to determine the cause of the high percentage of dead-in-shell.

On the farm in question three years ago there was a very bad outbreak of Coccidiosis, involving the loss of many hundreds of chicks. Those which escaped the disease were retained, and were apparently healthy birds. They may have had the disease in such a mild form as not to cause any apparent loss of vigour. A selection was made from these for the breeding stock this season. The results, in comparison with another pen which had been reared without any symptoms of the disease, are interesting and important. Both lots were put in different trays in the same incubator on the same day. Both pens were kept under exactly the same conditions. In the pen which had not suffered from Coccidiosis 135 eggs were placed in the tray. Of these 18 were clear and four had broken yolks; 113 eggs were kept in and 100 chicks resulted.

In the No. 1 pen, which had suffered from the disease as chicks, 138 eggs were placed in the next tray; of these 12 were clear and 11 broken yolks, etc., leaving 115 of which only 59 hatched. In another lot of these eggs from the same pen 138 were put in; 23 were clear, 6 broken yolks, leaving 109; only 52 of these hatched.

This is strong evidence that where heavy losses from disease are incurred, although many of the chicks may have escaped, or apparently escaped, the effects of such a disease is felt throughout of the hen, and has a big bearing on the question of dead-in-shell.

Roup Outbreak following Sale of Chicks.

WILTS POULTRY FARMER SUED FOR DAMAGES.

MELKSHAM LADY'S CLAIM FOR £600 DAMAGES.

LIABILITY DISPUTED AT BATH COUNTY COURT.

SPARROWS AS DISEASE CARRIERS.

RESPONSIBILITY OF VENDORS OF SURPLUS COCKERELS.

The hearing was resumed at Bath County Court on Friday morning last, April 30th, before His Honour Judge Gwynne James, of a case which occupied the attention of the court all day Saturday, April 24th, and was then adjourned, arising out of an outbreak of Roup on a Melksham Poultry Farm.

The plaintiff was Hugh Lynden Lemon, Lodge Poultry Farm, Poulshot, Devizes, and the defendant, Mrs. Beatrix Lucy Stewart Pollard, Manor Farm, Melksham, poultry farmer and dealer. The original claim was for £43 12s. 9d., of which the sum of £27 4s. 5d. had been paid into Court, leaving a sum of £16 8s. 4d. There was a counter-claim of £600.

Mr. F. J. Tucker, instructed by Messrs. Wansborough and Co., Bristol, was Counsel for Mr. Lemon, and Mr. E. H. C. Wethered, Counsel, instructed by Messrs. E. J. White and Co., Bath, for Mrs. Pollard.

The main question which His Honour had to decide was the liability of Mr. Lemon in regard to an outbreak of roup which occurred on Mrs. Pollard's poultry farm, after the introduction, between July 28th and 31st last, of 186 cockerels which Mr. Lemon had agreed to supply to her for, it was alleged, the purpose of caponising. In the plaintiff's statement two claims were alleged, one of expressed warranty as to the sound condition of the young cockerels sold her for caponising and fattening, the other being implied.

At the earlier hearing Mrs. Pollard told the Judge that soon after they came on the place—on August 5th—she noticed one of the birds had its head very swollen, and its eyes staring out, cheese-like matter exuding from them. The particular bird had a horrible smell. She looked at a poultry book later, and came to the conclusion that the bird was suffering from roup. She treated it but it died. Mr. Lemon, she said, denied that the case was one of roup, asserting that the bird was suffering from a summer cold. He told her she might mix the birds he had supplied her with her own, and she did so. Up to the date of the proceedings 103 of Lemon's birds had died, and a number had died since.

When the case was resumed on Friday last, Frank Tabor, poultry boy to Mrs. Pollard, said he accompanied Mrs. Pollard to see Mr. Lemon on July 23rd, and he gave evidence as to the conversation which took place between her and Lye (the manager) regarding the purchase of the fowls. Lye said the birds offered could be taken straight away, starved and started on (meaning caponising), and also as to subsequently taking some of the birds away in crates in a cart. The weather was fine when Tabor took away the first lot, and when unloading the birds he noticed a smell coming from them. It was quite fine also on the occasion when he took away the second lot of birds; they also had a smell like the others. The smell of the birds when they had roup was a "sort of familiar" smell to that when the birds arrived. He gave evidence as to the dates on which the birds died, and as to the separation from the main flock of certain birds that were sick. On the 15th August the birds that were well were placed with others belonging to Mrs. Pollard.

Cross-examined by Mr. Tucker:—On the occasion of his first visit to get the birds, witness was prepared to bring back about 100 birds. He took about half dozen crates with him, and Mr. Lemon loaned him a crate because witness had not enough. He denied that Mr. Lemon drew his attention to the fact that it was a very wet evening, and not suitable to remove the birds. His attention was first called to what the weather on that night was like by something he heard in court last Saturday. Except the smell he noticed nothing peculiar with regard to the birds when he unloaded them. He could not recollect the deaths on July 28th, or the day before, of any other birds on the farm. On one day after the birds arrived about twenty were caponised and three or four died within two days.

Ben Crook, another boy in the employ of Mrs. Pollard, admitted he had had no experience of poultry before entering her employ in July, 1925. In cross-examination he agreed that it had only occurred to him since the last hearing to try and recollect what the weather was like when the first lot of birds was received from Mr. Lemon.

The Judge asked if and when the smell was noticed? Crook admitted smell was only noticed on unloading at Mrs. Pollard's farm, and he had never smelled such a smell before.

Mrs. James, housekeeper to Mrs. Methuen, who assisted to unload the first lot of birds, said she would not have done so if it had been wet, as her health was not good. When she went with Mrs. Pollard to Mr. Lemon's place she went in the meal house, and saw there some birds in small cages of the type used for sick birds: one was dead.

Cross-examined: She did not take much notice of whether there were hundreds or thousands of birds on Mr. Lemon's farm. The birds in the cages were sick, but she did not take much notice of them.

Mr. Tucker. What made you think they were sick?—Because one usually keeps sick birds in cages like that.

Is that your reason for saying they were sick?—No.

What is it?—They looked as if they were sick.

You, of course, are an expert in fowls?—No, I am not.

Not being an expert you can always tell a bird when it looks sick?—Yes.

When these birds were delivered on July 28th, did they look sick?—They looked rather seedy.

Mr. C. J. Pring, of the Meteorological Office, Bath, was called to give evidence of the state of the weather on July 29th and 31st last. His Honour said it would be better if they could have records from Devizes or some town nearer Melksham.

Mr. Will Hooley, a judge of poultry and a member of the staff of "Poultry World," spoke to examining Mrs. Pollard's birds and finding them suffering from roup on a visit of inspection to her farm on October 6th later. He admitted that a bird that was weakly or suffering from cold or chill would be more liable to be affected by the disease than a healthy bird. Birds contracted roup from a specific organism which was invisible. After an outbreak whole premises would be a source of contagion, and for some time afterwards fresh birds might become infected.

Replying to His Honour, Mr. Hooley said that after an outbreak it was usually considered that the premises should not be used for a twelvemonth. Poultry could be carriers of the disease. A sparrow could be affected by roup, and witness had known instances of it. He should say it was very likely an affected sparrow that would carry the disease to a farm where poultry were healthy. Mr. Hooley said during his experience he had found dead sparrows with a disease on roup-infected farms.

By Mr. Wethered: The usual loss of birds following caponising was 2 or 3 per cent.

By Mr. Tucker: When a bird develops the unpleasant smell, that indicated that the bird was in about the seventh day of the disease.

By Mr. Wethered: The seven days was about the minimum; the maximum was fourteen. On the question of intestinal worms which Mr. Hooley said he found in some of the fowls, he stated that they existed in the embryonic stage for seventeen days and reached the adult stage at six weeks.

By Mr. Tucker: He would not expect to find all poultry suffering from worms. If he bought a number of birds in a market he would not be surprised to find some suffering from worms, because they would come from various sources. But if he bought 180 from Mr. Lemon's farm he would be surprised if any had worms. The presence of the latter in a slight degree would not render birds unfit for caponising.

Mr. Hooley (cross-examined by Mr. Tucker) would not agree that all birds had worms even in very slight form—a fact which was attested by many prominent authorities on poultry disease in standard text books on the subject.

Mr. Hooley then gave evidence as to how worms could be contracted. He saw the worms on October 6th.

Mr. Wethered: Would you expect to find worms in chickens hatched from eggs purchased from Mr. Lemon?—It is not impossible.

The Court then adjourned for lunch.

After the luncheon interval, Mr. Lynden Lemon of Lodge Poultry Farm, Poulshot, Devizes, gave evidence at the Bath County Court on Friday afternoon in the case arising out of an outbreak of roup at Mrs. Pollard's poultry farm at Melksham. Mrs. Pollard contends that the roup which caused heavy mortality among fowl, which were being caponised and fed for the London hotel trade, was introduced by birds she had purchased from Mr. Lemon, claiming £600 damages, Mr. Lemon disputing liability.

Mr. Lemon said that he had been poultry farming for seven years, and was not a poultry dealer but a breeder, and had won many awards and prizes in laying competitions and at shows with his birds. This was the first complaint made against him.

On the evening of July 28th, when Mrs. Pollard's men came to fetch the birds, there had been heavy thunder storms. All the birds were in a double breeding pen house with two grass runs. Just as they were about to pick up the birds there was a severe storm. He suggested to Mrs. Pollard's lad that there was a grave risk of putting the birds in open crates when it looked as if there might be more storms. Mr. Lye agreed with witness. The lad informed witness that he had instructions to fetch the birds, and that he must do. The birds were caught up singly and examined to see if they had been toe-punched, and any that had were put into another pen. While doing so there was another storm, and witness put two of the empty crates on top of those containing birds to help to protect them from the rain. Some of the birds were in a sorry state from the rain, and witness told the lad to tell Mrs. Pollard to be very careful how the birds were housed owing to the risk of over-heating in their wet state. Except that some were wet there was nothing whatever the matter with the birds taken away. The birds had not got roup, neither did they give off an offensive smell. Out of 60 birds retained from stock witness still had 24. Most of the remainder were sold for stock purposes, and witness had had no complaint about them. None of the birds on witness's premises had suffered from roup. When Mrs. Pollard came over to his place after she had the birds she did not tell witness that any of the birds had died. They were in the meal house with twenty-four shows pens used for training birds in or putting broody hens or killing cock birds in. It was quite possible there might have been a dead bird in one of the pens which had been put there by Lye. There would be just under 2,000 birds on the farm on July 28th. Mr. Lemon said, as far as he could recollect, the first complaint he had from Mrs. Pollard in reference to birds dying was shortly before August 15th. It came through his wife, who had had a telephone communication. When he went to Mrs. Pollards he saw one bird in a flock in one of the yards, which he caught. Having explained to her what she would find if the bird had roup, he opened the bird's beak and asked her to examine it. She could find nothing, and also admitted there was no smell. He examined the three birds in that way. He did not see a bird with a swollen head, and did not find any signs of roup. The three birds were suffering from colds, and he advised Mrs. Pollard to isolate them. Witness afterwards saw six pens of birds in a deplorable state; they were not supplied by witness. He told Mrs. Pollard if she was in any way dubious about the roup, he would take every bird back again, and she replied, "I am satisfied with your decision."

By Mr. Wethered: He did not have an outbreak of roup on his farm in 1924.

Mr. Lemon (under cross-examination): He occupied the same poultry farm in 1924. He was questioned by Mr. Wethered, at great length, as to whether there was an outbreak of roup on the farm in 1924. Mr. Lemon absolutely denied this, and later volunteered the information that the outbreak of roup on his farm was in December, 1922—January, 1923. He bred all his own stock, with the exception of special stock birds, bought in annually. In 1924 the number of birds on the farm ranged from about 950 to 3,000, according to season. In the 1922—1923 outbreak two houses were infected with 150 birds. He killed every affected bird, and disinfected and isolated the pens for three to four months. Normally, his losses did not represent more than about 5 per cent. of the stock, excluding chickens. He had no roup at all since the 1922-3 outbreak. All possibly infected grounds had been sprayed with disinfectant and limed—a procedure he was led to understand was very effective. The birds supplied to Mrs. Pollard had never been anywhere near the infected ground, being in a different section of the farm. He was still using the two houses with Black La Bresse birds. There were certainly Black La Bresse birds among those supplied to Mrs. Pollard, but they were cockerels and not from the formerly infected section of the farm at all. He had never been aware of any trouble with round worms in his stock.

Mr. Pring, of the Bath Meterological Office, was called to give records of the weather on the days about July 28th—August 1st, 1925, but on explaining that the weather at Bath was not necessarily a guide to the weather in the Devizes district was released from evidence.

Mr. Lemon (resuming) stated that he had communicated with a gentleman recording weather data in Devizes. It was stated that this gentleman, Mr. Green, had found his reading to differ considerably on occasions from those of Mr. Jackson, who recorded not far away. Down in Poulshot there were often thunderstorms which missed the town of Devizes. Actually in Devizes July 28th was fine, but there was rain on July 29th, which Mr. Lemon claimed to be the actual date of despatch of the birds.

Continuing, Mr. Lemon said that on August 6th, Mrs. Pollard purchased poultry houses, etc., from him, and said the birds were going on satisfactorily. No complaint of any sort was made by Mrs. Pollard. She told him she had bought birds in the market. She herself volunteered the information, and said she regretted having done so owing to the risk of bringing in disease. He agreed with the risk, but never said anything about "Poor little woman," etc., as was claimed. He never bought birds in the market.

When Mr. Lemon visited Mrs. Pollard's farm she only took him into her laboratory, past the dressing room. There were no birds in there, and it was the only room of the place he entered. The six pens, where the birds were stated to be wallowing in mud, were said to be in that condition owing to the fact that Mrs. Pollard only had two boys, and had so much work to do herself. Mr. Lemon did not see any birds in hospital. On August 15th he saw no signs of roup in the place. She herself suggested roup.

He said that colds, if not taken care of, would eventually develop into roup. On September 1st she wrote to him about roup. On August 15th he advised Mrs. Pollard not to mix the birds supplied by him with the others, and to give his birds better protection at night, as three of them were suffering from colds. He realised the importance of isolating birds. On his visit to her farm he found some of his birds in a shed and a number running about the yard along with R.I.R.'s, a breed he had not supplied. He saw some of her birds and some of his together in the new pens he had supplied to her, and which were in the orchard. These birds looked very well after the operation of caponising. He did not know the meaning of a "summer" cold, and had never used the expression.

Mr. Lye (manager of Mr. Lemon's poultry farm at the time of the purchase by Mrs. Pollard) then gave evidence: He claimed 27 years' experience of poultry. On July 23rd he saw Mrs. Pollard, who asked him if he had any chickens of 8-10 weeks old for sale. He replied that he had none of that age, and showed her some cockerels of various ages. She said she wanted them for caponising. She did not give a definite order, but it was stated that she could have the larger birds for 2/6 and the smaller ones for 2/- each for fattening. She asked how many she could have. He was present on July 28th and 31st, the two occasions when Mrs. Pollard sent her boy for the two consignments she eventually bought. Mr. Lye said it was stormy when the first lot was taken, and corroborated Mr. Lemon's evidence as to what occurred each time. On July 31st he selected the birds himself. The birds were in good condition, and he noticed no traces of roup in either set. He noticed no roupy smell, pointing out that he knew the characteristic smell of roup quite well. He was with Mr. Lemon when they had the outbreak of roup in 1922-3. The outbreak finished in February, 1923.

Mr. Cockeram, the Wilts poultry instructor, was never called in, but often paid them a passing visit. The houses formerly infected were used for about six months prior to July 28th.

Mr. Albert H. Brain, Director of the Midland Laying Trials, a poultry farmer and lecturer, and an accepted specialist on common poultry diseases, then gave evidence:—He stated he was very familiar with the smell given off in roup, and considered that there would be a period of at least seven days from date of infection before the smell would be noticeable, by which time other symptoms would be obvious. He had heard the evidence of Mrs. Pollard on the smell of the birds, and assuming the birds were smelling of roup on delivery, and that no treatment was employed; he would expect all the birds to be infected by August 15th. He would also expect the 60 birds from the pen which were retained by Mr. Lemon to be infected also, presuming the birds on Mr. Lemon's farm at the time of the sale to Mrs. Pollard, and if taken from the same pen or lot. If birds are wet and become chilled, this stage pre-disposes them to roup. He considered the disease might develop in a week after infection. The swollen head was not an advanced stage of the disease, and the smell was usually discernable about the time of the head swelling. From personal experience, Mr. Brain had known starlings, rooks, rats and sparrows to act as "carriers" of roup, having killed infected specimens. There were very many cases of roup where it was impossible to trace the source of infection.

Under cross-examination Mr. Brain said it was an established fact that round worm was quite common in poultry, and in mild cases the bird suffered no ill-health on that account alone.

Referring to roup, he said it would be most unusual for the cheese-like matter to come from the eye or swollen head, as the infected parts would be gummed up—in fact, the cheese-like matter had generally to be forcibly removed in the treatment of such cases. Such a condition would be reached in about seven to twelve days after infection.

Mr. Brain then described in considerable detail (the Judge remarking on the evidence as being a lecture) the symptoms of the various stages of roup as (1) Catarrhal colds, with running eye and nostrils, etc.; (2) Facial distortion or one-eyed stage, etc.; (3) Mouth canker stage, disclosing false membranes, etc.; (4) Bird pox, the worst and most infectious form.

Mr. Brain admitted that he was not familiar with either of the farms in this action. He also agreed that roup might be carried by boots, implements, etc.

The Judge asked Mr. Brain if he could give any other likely cause of infection.

Mr. Brain said that any healthy flock of fowls could be given roup if placed in circumstances conducive to the development of colds and chill. Poor or inadequate ventilation, bad feeding, wind and exposure to severe atmospheric conditions would pre-dispose roup.

The Judge: Comes in the air, is air-borne, as it were?

Mr. Brain: Not exactly, but the colds from which roup develop would be caused through air and wind excesses. He admitted that the birds would go down with the disease over a period, and that five in three days, and in a further twelve days another 21, would be quite possible. Packing closely in crates and a change of surroundings and conditions might easily pre-dispose, the pre-disposing causes of roup. Birds would smell badly if carried in wet condition in tightly-packed crates for many hours together.

Mr. G. Walworth, M.A., Diploma in Agriculture of Cambridge University, technical adviser to Messrs. Stonehouse Works Co., West Bromwich. stated that the firm to which he belonged was interested in poultry and poultry foods. Witness had had considerable experience of roup in fowls, and stated that the various forms of roup were largely due to the complications, accompanying the development of the ultra-microscopic virus. Thus, bacteria of the diphtheritic type, protozoa and decay organisms were found to varying extents in different affected birds. The ultra-microscopic virus obviously was not recognisable apart from its action on a roupy bird, so that it was recognisable apart from its action on a roupy bird, so that it was impossible to state the actual method of infection. He agreed with the other experts present as to the probable period of incubation up to the swollen head stage, and stated that it would be miraculous to be able to select sixty perfect healthy birds from a pen of 250 or so, and to send away some 186 birds which, an hour later, were reeking with a roupy smell as had been described. The smell itself would indicate an infection of about a week's standing.

In the course of cross-questioning, Mr. Walworth stated that he had commonly found round worms in poultry, quite apart from the post-mortems sent to him. He admitted that birds in low condition were pre-disposed to roup, but would not commit himself on the question of the resistance of perfectly healthy birds, as health was a matter of degree. Perfect health would obviously not include roup.

Mrs. Lemon then corroborated some of her husband's statements, particularly with regard to the thunderstorm on the date of the first consignment of birds to Mrs. Pollard.

Then evidence of Mr. Maclaren and summing up of the two counsels, and finally the findings of the Judge.

MR. TUCKER'S SUMMING UP.

His case was based on two points. In the first place, he claimed to have shown that, in the sale of these birds to Mrs. Pollard there was no warranty, expressed or implied on the part of his client. Secondly, the birds were handed to the purchaser in a reasonable condition, and not suffering from roup. He did not seek to deny that, at a much later date, the birds became the subjects of roup, but for this occurrence his client was in no way responsible, nor liable for any subsequent expense incurred by Mrs. Pollard. His case was perfectly clear. Firstly, the definite evidence indicated that the birds were sold for general fattening purposes, for which they were suitable, although not warranted in any way. Secondly, he submitted that the first actual presence of roup on Mrs. Pollard's farm was at a very much later date, and that the presence of the bird on August 5th with a swollen head was never brought to the notice of his client, who had no knowledge of its existence.

Mr. Wethered based his claims under two counts also. He asserted that the birds were sold with the definite warranty, stated or implied, that they were suitable for caponising. This included the warranty that the birds should be perfectly healthy and of suitable age. Secondly, he maintained that the birds supplied were suffering from a definitely developed state of roup, giving off the offensive smell when they arrived at Mrs. Pollard's farm. They had brought the disease to her healthy stock, and she was entitled to damages, not only on account of stock lost, but to cover cost of treatment and cost of eradicating all traces of the disease from her premises.

The Judge summed up the points of the parties, pointing out the difficulties of the case, more complicated by some of the differences of opinions of the experts called in, and stating that experts nearly always disagreed.

On the first count he found that there was an implied warranty, but he ruled that it only extended to the condition of the birds for general fattening.

On the major point he ruled that the bird with the swollen head was undoubtedly suffering from roup on August 5th, and that the disease was brought from Mr. Lemon's birds which arrived in the smelly condition described. He therefore awarded judgment in this case to Mrs. Pollard.

The question of damages therefore arose, and he suggested this should be tried at an early date.

After discussion with counsel for both parties, Monday, May 3rd, was chosen for the hearing.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

THE FOOD SCHEME AND THE STRIKE.

We are all of us very happy now that the great trouble is over, and I only refer to it to say that, thanks to the cordial co-operation of the firms who are working with us in the Food Scheme, we were able to make arrangements for our members to be supplied.

Many S.O.S. signals reached us, and a few of the letters were a little bit panicky, but I am glad to say that we were, in almost every case, able to secure supplies.

We were making arrangements to broadcast a notice to our members to the effect that we were in a position to supply if they would communicate with us, when the good news arrived that the trouble was over.

Nearly twenty depots had been fixed up, and arrangements made with each to supply within a radius of fifty miles.

I must take this opportunity of thanking all the firms who were so eager to co-operate with us in this matter, and I am sure our members will cordially endorse these thanks.

We have not been able to acknowledge the many letters of appreciation we have received from members who obtained supplies through us at this difficult time.

S.P.B.A. AND THE THREE COUNTIES SHOW.

The Council have decided that a stand shall be taken at the Three Counties Show, which is to be held at Gloucester on June 8th, 9th and 10th. Entries in the Poultry Section close on May 18th, and we are wondering, while we are writing this, whether the notice will be in time to secure from members of the S.P.B.A., and readers of "Eggs," the support which the Show so well deserves.

There is a strong Utility Section, in which the judges will be Mr. W. Hamnett and Mr. T. Hedges, while Mr. Clem Watson is judging the Exhibition classes.

A large number of "Specials" are offered, including a Challenge Cup by the Council of the S.P.B.A., open to members of the Western Counties Branch, for the best bird in the Utility Section, the property of a member of the Branch residing in Gloucestershire, Herefordshire, Worcestershire. Monmouth, Somerset, or Wilts.

All communications should be addressed to the Hon. Secretary, Three Counties Agricultural Show, Shire Hall, Gloucester.

COCCIDIOSIS.

The following is of interest. It is an extract from a letter received from Mr. E. H. Lee.

The application of methylated spirit to the shell of an egg previous to incubating would appear to have been effective, but we must judge the case on its merits, and not place undue importance upon it. It may have been purely a question of coincidence :—

> "I wrote you a long letter of questions re Coccidiosis a month ago, and possibly my experiences since would be of interest to you and others. I had asked you whether an infected egg would infect other eggs, though removed from an incubator prior to hatching. At the time of writing I had three incubators running—from two of which the suspected eggs had been removed, but the third had never contained any suspected eggs. One of the two former was used as a test hatch, all eggs being disinfected with methylated spirit, and there was no outbreak. The other, which had had infected eggs in it for the first week or less, was not treated with methylated, and contracted Coccidiosis very badly. The third one has produced a very healthy lot of chicks. I might add that each lot was kept off the soil and in a clean house; also the incubator had been disinfected before hatching."

A DEPRAVED APPETITE.

A curious case has been brought to my notice by one of our members living at Malmesbury. In the first case he bought 90 day-old chicks. They were all affected with Coccidiosis during the first day, and the majority of them died. One hundred eggs supplied by the same breeder :—The chicks from these exhibited similar symptoms, although when hatched they appear a bonny lot, and eventually the majority of these also went "west."

The one peculiarity at first was the depraved appetite exhibited. They began by toe-picking, and all efforts to stop this failed, pieces of stick were found in the gizzard. In two cases the gizzard was pierced with these small sticks.

It is not often we get a case of depraved appetite reported to us. It has been suggested, and this is in some cases true, that it is due to some deficiency in the food—lack of salt, for example, will cause it. It is also possible, and probable, that it is due to disease, or birds suffering badly from worms will occasionally exhibit it. Sometimes the presence of a toxic substance in a food will cause it ; cottonseed meal is an example. This contains a poison known as "gossypool," and birds fed on it for a period develop depraved appetites, eating all manner of things, such as sticks, rag, straw, etc., etc. Apparently in the case just mentioned the whole of the trouble arose from the diseased condition of the chicks.

PERIOD OF HATCHING.

I have received the following interesting letter from Mr. Hermann Lea. As a remote but possible cause, may I suggest the possibility of some of the hens sitting on rather more damp ground than others? If the egg absorbed more moisture, or an excess of moisture, this would delay hatching.

Perhaps some of our members will express their opinions. With regard to Mr. Lea's observations on hatchability, I think this requires a lot more investigation. It would not be difficult to supply figures which would refute his suggestion, but, even so, I would not like to say that is conclusive :

Ten Oaks, Ringwood, 26th April, 1926.

PERIOD OF HATCHING.

Dear Sir,—You may be interested in the following details:— On February the 8th of this year I penned three selected pullets to breed from, putting a second-season cock (their father) with them on alternate days. I began saving their eggs on the 14th, placing them under broody hens, until I had 104 eggs under eight hens. 102 chicks hatched; there was one dead-in-shell, and one egg was clear. Four chicks did not seem quite equal to the others in vigour and were killed. The remaining 98 are thriving excellently.

Now these eight hens were sat under precisely similar conditions at intervals of four or five days, and they all appeared to sit steadily; yet two of them hatched on the 20th day, four on the 21st day, one on the 22nd day, and one on the 23rd day. The weather conditions were as generally variable, as is usual during February and March. There was no noticeable difference in the vigour of the chicks, either when first hatched or subsequently.

HATCHABILITY.

I hold a theory that the factor of hatchability is more dependant on the cock than on the hen. Rearability would appear to be correlative. An experiment which bears out my contention was the mating of a cock with 83 different hens and pullets, some of which had given only medium results when mated to a different cock. Out of more than 1,000 eggs incubated there were only three clears, and of the chicks hatched 96 per cent. were reared to maturity.

Yours faithfully, HERMANN LEA

EXPORT—CHICKS AND EGGS.

I have received a letter from a member in Switzerland, who states that he bought 500 day-olds from England. Three died on the journey, which lasted over 24 hours, and the mortality up to five weeks was 5 per cent. He also had 1,500 eggs over, and the hatches averaged from 30 to 60 per cent., an average of 40 per cent., the mortality nil, up to a fortnight. He suggests that exporters should therefore advise their clients to buy chicks and not eggs.

I think this is very sensible advice. As I have previously stated, my experience has been that even in this country the hatchability of the home-produced egg is 10 per cent. higher than that of the travelled one, and what is likely to be the result of a journey from England to Switzerland one can imagine.

THE MARKETING OF EGGS.

Mr. F. E. Wild has sent me the following cutting from the "Daily Express," and he asks—in view of Mr. Norman Preston's letter on the above subject and the statement that the marking of English eggs will not help—the foreign egg has won its position by quality and price, etc.—how Mr. Preston will explain this? He, personally, is absolutely convinced that the cutting contains the key to the great marketing problem.

Perfectly true, but can we entirely cut out the middle man? It certainly would be helpful if we could. Still, I do not think Mr. Wild is wholly right, or that he answers Mr. Preston's objection. The middle man is not the sole cause of the trouble. We have producers who, as the evidence of the Co-operative Societies have shown, regularly market, not only low grade eggs, but eggs which are absolutely bad.

NEW LAID EGGS SECRET.

To the Editor of the "Daily Express."

Sir,—I am a retailer of eggs, and until a year ago bought from the middleman.

As I believed I was receiving mixed eggs, I advertised, and thus came into touch with a reliable producer. Consequently we have cut out the middleman, to the benefit of the public, who now buy really new laid eggs, and to my benefit, for my sales have been doubled owing to the reliable quality of the eggs. The producer also benefits by getting a better price.

St. Leonards-on-Sea. A RETAILER.

THE WELLINGHAM EXPERIMENT.

Before dealing with Miss Malcolm's report, I quote from a letter received from Mr. S. M. Grant:—

> "I feed your formulae, and the mash used at the Wellingham experiments last year. So far this year I have not had a bird under 3½ lbs. at 14 weeks, two weeks trough feeding, and many well over 4 lbs. It is a fine mash for building up frame."

The same mash is being used by Miss Malcolm in the experiments this year, and I have been asked my reason for the inclusion of the various ingredients, but time will not permit that now. Miss Malcolm is feeding it as a wet mash—last year it was fed dry. There is a curious similarity in the results. Last year, the average weight at 11 weeks old was 2 lbs. 7.140 ozs. per bird, as compared with 2 lbs. 7.51 ozs. The ten heaviest birds at this age last year averaged 3 lbs. 1½ ozs. The 20 heaviest this year, 3 lbs. 1¾ozs. The final report promised by Miss Malcolm should be of the very greatest interest.

REPORT ON INTENSIVE REARING OF TABLE POULTRY, AT WELLINGHAM.—27th APRIL, 1926.

The chickens used for this experiment are eleven wees old. In order to use the last year's feeding experiment as a control to this group, we are not weighing these birds collectively after to-day, as last year's experiment was closed at the eleventh week. The birds will, however, be kept intensively until all are marketed.

There have been two losses since my last report, one bird being light and moping, was killed; the second bird was accidentally killed.

The 198 remaining birds at to-day's weighing were found to scale 489 lbs. 15 ozs., the average weight at the eleventh week being thus 2lbs. 7.51 ozs. The 20 heaviest birds weighed 62 lbs. 9 ozs., the average weight being 3 lbs. 2.5 ozs., while the 20 smallest weighed 20 lbs. 4 ozs., the average weight 2 lbs. 6.2 ozs.

Forty birds were to-day brought from the experiment house and put into crates for fattening. They varied in weight from 3½ lbs. to 2 lbs. 14 ozs. They will be kept in the crates for three weeks and then marketed.

The condition of all the birds could not be better. They are bright and lively, and show all the signs of perfect health.

The final report will be issued after all the birds have been marketed, when it is proposed to publish an exact costing of this experiment from the day of hatching to that of marketing.

B. MALCOLM.

ROUP.

In view of the decision given in favour of plaintiff in the Bath County Court, upon which I do not think at present it is advisable to express an opinion, I have been asked to impress upon all members of the S.P.B.A. and all readers of "Eggs," selling cockerels, or live stock of any description, that they should, in the first place, carefully examine such stock before despatching, and in the second, should cover themselves against similar proceedings by having at the bottom of their letter headings, the following:—

> "Any sale effected under the above quotation is subject to the following:—All Warranties, either expressed or implied by section 14—sub-sections one and two of the Sale of Goods Act, 1893, or at Common Law are expressly excluded from the said Sale."

It should be understood that this will be of no use unless it is upon the invoice or contract of sale, and further than under no circumstances would such a condition cover them, if negligence should be proved against them.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICATIONS FOR MEMBERSHIP.

Ainley, N. E., 224, St. Vincent Street, South Shields.
Worsdell, A. V., Hinchingbrooke, Huntingdon.
Proctor, Rev. J., The Presbytery, Dalbeth, Tollcross, Glasgow.
Chambers, Miss M., Belmont, Nr. Chesterfield, Derbyshire.
Colvin, Miss R. M., Cothill, Nairn.
Galloway, S. L., 63, Estcourt Avenue, Headingley, Leeds.
Parker, J. C., The Grey Cottage, Lee, N. Devon.
Workman, Mrs., Wigwam, Hucknall, Notts.
Pound, Mrs. D., Wayside Cottage, West Hill, Ottery St. Mary, Devon.
Norman, Mrs. A. B., North Lodge, Wallington Woods, King's Lynn.
Macdonald, A., Bravellie, 2, Victoria Circus, Inverness.
Payton, C. H., The Poplars P. Farm, Ocean Drive, Ferring, Worthing, Sussex.
Duggleby, Richard, Cawkell, Cranswick, Beverley, E. Yorks.
Abrams, Miss J. B., Liniegrove, Broadstone, Beith, Scotland.
Dampney, T L., London Farm, Avon, Christchurch, Hants.
Howes, John, "Tower View," Trinity, Jersey, C.I.
Symonds, Miss M. A., 52, Court Lane, Erdington, Birmingham.
Rusling, John S., Church Farm, Bushley, Tewkesbury.
Ford, C. W., Furze Hill, Fordingbridge, Hants.
Gillmon, J. H., The Cotswold P.F., Uley, Dursley, Glos.
Riviere, B. B., St. Giles' Plain, Norwich.
Russell, W. J., 22, Farm Cottage, Beddington Lane, Croydon.
Blaauw, B., Broken Stone, Birdham, Chichester.
Wilson, James (Junr.), Piked Edged P. Farm, Colne, Lancs.
Swain, Mrs. E. S. P., "Lynwood," Rudgwick, Sussex.
Rutter, J. T., Fulletby Manor, Horncastle, Lincs.
Doyle, Harry, 84, Derby Street, Barrow-in-Furness.
Greenway, H. T., Newent, Glos.
Cook, B. J., Newent, Glos.
Hutchinson, Miss A., Old Court, Newent, Glos.
Jenkins and Davis, Enfield P. Farm, Evercreech, Somerset.
Robinson, R. W., Green Lane, Ruskington, Lincs.
Burton, Mrs. F., Sea Lane, Ferring, Goring-by-Sea.
Bevans, J. W., Fowey, Conway, Carnarvonshire.
Costello, Miss J., Colton's Hotel, Tullamore, Offally, Ireland.
Perry, A., St. Michael's, Thorington, Essex.
Berens, Mrs. Atherton, Paynes Place, Bushley, Tewkesbury.
Lamplough, L. W., Hollands Heath Farm, Kirdford, Sussex.
Lowdon, Mrs. W. B., Whinfell Road, Darras Hall, Ponteland, Northumberland.
Gardner, H. H., Myton Farm, Warwick.
Daniel, V. B. St. J., Compton Hall, South Creake, Fakenham, Norfolk
Wigg, Miss L. N., Rockshan, Merstham, Surrey.
Rock, Mrs. W. P., Supply Stores, Evercreech, Somerset.
Holt, Follett, Great Ruffins, Wickham Bishops, Essex.
Hutcheon, John, Coireseunan Lodge, Lumsden, Aberdeenshire.
Billows, C., Lucas Cottage, Dalton, Parbold, Lancs.
Wilson, Mrs. J. Gerald, Manfield House, Darlington.
Mackintosh, Mrs. F., The Hermitage, Nairn, Scotland.
Applin, A., Light Sussex Farm, Eye, Suffolk.
Day, W., 30, Little Clarendon Street, Oxford.
Francis, Brig.-Gen. S. G., The Little Wood, Sarisbury Green, Southampton.
Iliffe, Thomas, St. Heillers P. Farm, Highway Road, Thurmaston. Nr. Leicester.

WIRELESS TALKS ON POULTRY.

"CHANTICLEER'S POULTRY TALKS" have been broadcasted from Birmingham, and are now published in a very handsome little booklet, price 1s.

I can thoroughly recommend this little book to my readers. It is very comprehensive. The "Talks" are divided into four series—Spring, Summer, Autumn, and Winter.

Advice is given on "Breeds that Pay," on "Hatching and Rearing," on "Ducklings," on "Poultry Culture for Women," "Foods and Feeding," "Selecting the Layers," "The Hen's Anatomy," Intensive Poultry Culture," "Preparation for the Show," "Turkeys and Geese."

It is a most useful little book that every poultry-keeper should have on his library shelves.

"Chanticleer" writes clearly and to the purpose, and leaves his reader in no doubt as to his meaning. It is all very practical, and, as I have said before, I can thoroughly recommend it to my readers.

THE BURY AND RADCLIFFE JOINT LAYING TEST.

REPORT FOR SIXTH MONTH ENDING 31st March, 1926.

There are 25 pens (two birds) in the Light Breed Section, the following list being the number of eggs laid, points for the sixth month, and total points to date, of the first six pens:—

Capt. Wyles Houghton, 32, 143, 919; Mr. T. P. Taylor, 39, 175, 913; Mr. J. Berry, 42, 170, 865; Mr. James Ratcliffe, 41, 186, 843; Mr. J. Shepherd, 37, 154, 812; Mr. J. Shaw, 43, 175, 743. One of Mr. Ratcliffe's birds laid 28 successive days.

In the Heavy Section, made-up of R.I. Reds, White Wyandottes and Light Sussex, the following list lead to date.—

Mr. S. E. Lonsdale, 42, 172, 1509; Mr. F. Haslam, 25, 101, 1309; Mr. T. P. Taylor, 42, 170, 1275; Mr. A. Warburton, 31, 128, 1025. The second are Light Sussex, the rest being White Wyandottes.

NOTICE.

Owing to the General Strike it was not possible to publish "EGGS" for May 12th, so this issue (May 19th) follows that of May 5th, which with some difficulty was published.

Those of our readers who were unable to obtain copies of the issue of May 5th can now obtain same by ordering through their newsagents or direct from the Publishing Dept., 94, Farncombe Street, London, S.E. 16, post free 3d.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

E. H. (Dewsbury) writes for advice on feeding chicks which are ten days old. He encloses a sample of mash, which consists of middlings, oatmeal, biscuit meal, some bran and meat meal. It is a very good sample, but too concentrated to feed as a dry mash for chicks. It could be scalded and fed in a crumbly moist consistency, three times daily. The dry chick feed is only a moderate sample. It contains comparatively little wheat or groats, a great deal of rice and millet. He could give this as a small scratch feed once daily, and as much as the chicks will eat as the last feed.

S. S. (Northumberland) writes that he has chicks three weeks old which have done very well until the time of writing when they were standing about dull and listless, at mid-day and one or two were staggering about. Two were blown up like a balloon. He describes his feeding which has nothing whatever to do with this trouble. I am confident that it can be traced to faulty ventilation in the brooder. The two chicks blown up like a balloon are suffering from what is known as Emphysema, the cause of which has been explained in these columns many times. I would advise my correspondent to pay more attention to the brooder. There is the possibility of there being too many chicks, and the reduction of numbers may effect the purpose without changing the ventilation. Pricking the skin of the chicks suffering from Emphysema will give temporary relief, but they rarely grow to healthy maturity, and it is best to kill them. In addition to attending to the ventilation of the brooder it would be advisable also to give 40 grains of citrate of iron and quinine to the gallon of drinking water.

Beith (Scotland) first asks for particulars of S.P.B.A. She states she has had a copy of "EGGS," dated April 7th, given her. She also asks for the address of suppliers under the Food Purchase Scheme. We regret this cannot be sent her, as all business must be done through the S.P.B.A., and the order will be sent to the nearest depot to her. Her letter is a little inexplicit. She says she is interested in the subject of sex linkage, and there and then ordered a Black Leghorn cockerel, and she is going to run a 200-egg incubator. I must say, although pretty late in the season, she must hustle to get the eggs to have birds suitable to mate next season with her Black Leghorn cockerel. She wants to know the best breed to obtain eggs. Her best breed would be either the Barred Rock or the Cuckoo Leghorn, and then she adds, "and if the lecture he referred to is available for reading, would I let her know how she could procure it," but as I do not know to what lecture he referred to, I am afraid I cannot help her. Then she continues: "Say I ordered three dozen R.I. Red eggs also from my friend, who is satisfied with no less than the best class; are these resulting birds to be mated according to the lecturer?" But what lecturer? She could mate the Red males with Wyandotte pullets or hens, or any white breed, except the Leghorn, and this would give her sex linkage. The pullets would be buff or red and the cockerels white or silver. More than this I am afraid I cannot help her, as her letter is hardly explicit.

"Wing Bands" (Fife) writes: "I would like to know the correct way for putting rings on chicks' wings—actual place, latest date for removing them from legs, and whether they can stay on the wings for the rest of their lives." The wing bands should be placed on the chicks' wings after they are three weeks old. The rings can be removed from the legs, and it will not be necessary to replace them. There is often unintentional cruelty when leg bands become too small for the growing legs. When a wing band is used they need no further attention, as they become permanent marks. When the wing of the chick is opened, a flap of skin will be noticed which extends from the shoulder joint across to the third joint of the wing, counting the shoulder joint as the first joint. By holding this skin up to the light, a place can be selected about a quarter of an inch from the edge of the skin, where there are no large blood vessels. At this point, run the small blade of the penknife through the wing, little bleeding will result. Insert the band through the slit in the skin, and bring the ends together, forming the band into a circle. Care must be taken that, in inserting the band into the wing, it is not pressed together, so as to squeeze or pinch the skin of the wing. If this is done, the circulation will be cut off, a sore will form, and the band may slough out and be lost. These bands when put in properly will remain in the wing of the fowl through mature life, and will always serve as a permanent identification mark

E. B. (Sheffield) has lost a number of chicks; the symptoms are pasting up behind. When sent for post-mortem examination, the only reply as there was no evidence of contagious disease. This is not satisfactory, and we feel that at least something should have been said as to the probable, or possible cause of this mortality and condition. It may be reassuring to our correspondent to know that there is no contagious disease, but it is not exactly helpful in other ways. With regard to this pasting up behind. Occasionally, this may be caused by too high a temperature in the brooder, or to the excessive feeding of high starchy foods, as biscuit meal, wheat, etc. One rarely gets this when a hopper of broad bran is before the chicks, if it is due to an excess of starchy foods. Few breeders appreciate that the excessive use of any starchy food will cause this condition, and in many cases they try to cure it by adding fuel to the fire, in giving boiled rice. A better plan would be always to supply plenty of fresh green food, and have a hopper of dry bran always before the chicks.

R. S. J. (Four Marks) writes: "I have a Light Sussex (1925) pullet which laid at a fast rate from August, through the winter. but began to slow up in February, and stopped altogether at the end of that month, although her pelvic bones remained wide open, as when in full lay, but she was extremely fat; in fact, she put on 1¾ lb. from date of first egg (five months four days' old). Her pelvic bones both ways (that is, distance from pelvics to keel) are still wide open, her headgear is a burning red, and she looks as if she is in full lay, but I am sure she never lays, although she occasionally visits the nest. Do you think she is absorbing her yolks? If so, and I thin her down, is she likely to come into profit again? She is a valuable bird and is worth a lot of trouble if necessary. She is an excellent layer of large eggs, never broody, well marked and over 7 lbs. in weight. I also have a sister of her's which has been laying steadily since last August, and has always been fat, but is now slowing down like her sister did (that is, laying every other day instead of six or seven days, break one day. and so on). Probably this is only her well-earned rest, but I would like to know. I find it very difficult to feed my Light Sussex properly as a flock, as there are always a few like the above which insist on getting fat on the same food which others get out of condition on. Even my White Leghorns are getting fat, in spite of the fact that they have averaged 130 eggs per bird, as a flock since October 1st, 1925. This is on wet and dry mash combined and corn fed last thing at night in troughs, during November, December, January, and February by hurricane lamp at 8.30 p.m. Needless to say the Light Sussex get only dry mash and corn. Neither breeds have had a greater percentage of animal food than five per cent. fish meal, and I shall never expect a greater winter output than what I had with these breeds last winter. Would you kindly advise me as to the feeding and buying of Whale Meal. which is being offered cheap as compared with other animal foods rich in protein?"—In reply to my correspondent. Hen No. 1 may be in an over-fat condition. I could not say definitely that she is absorbing her yolks, although this seems most probable, but thinning her down will not bring her into production again. As to her sister, she is probably taking a well-earned rest, and if my correspondent does not want her to get over-fat it would be advisable to bulk the mash, and change the grain feed to good plump white oats. There are always individuals in a flock which have a tendency to put on fat, and if a flock has this tendency, the best way is to add more bulk to the mash. I rather doubt his White Leghorns getting fat, but if so, my correspondent must see that they get plenty of scratching exercise and slightly bulk their mash as well. With regard to the Whale Meal. So far as I am aware there is only one brand of this on the market which is suitable for poultry feeding. Samples have been submitted to me, which show it to be of a value, at least equal to the best white Fish Meal. I have not space to say more on this subject here at present, but will refer to it later on.

R. P. (Belhampton) writes that he has a pullet whose comb and wattles are almost of a yellow colour. The bird appears dull, and he wishes to know what he can do. Frankly, the best thing to do would be to kill and burn the bird. It appears to be suffering from jaundice, which is due to long continued congestion of the liver. As a rule there is an accumulation of a large proportion of bile in the gall bladder and ducts of the bird. He might give Epsom salts frequently, and often one grain of aloes has been recommended with a plentiful supply of fresh green food. Starchy foods should be avoided. My correspondent, however, will be wise if, as I said before, he kills and burns the bird.

Double Yolked (Accrington) is getting a number of double-yolked and thin shelled eggs, his feeding has not varied since November, and he wants to know what suggestions I can make. He has been advised to dose the birds with Epsom salts, and to give an iron tonic. This treatment is not likely to be effective. Probably only a few birds are affected, and to treat the flock for the individual would be a mistake. Feeding which may give excellent results in the "off" season, will be a little too stimulating with very prolific individuals in the flush. I suggest my correspondent tries feeding nothing but good, plump oats as the grain feed, and if this does not effect an improvement he should slightly reduce the quantity of mash.

M. L. (Worcester) finds a small drop in the egg yield and smaller size; birds have been laying heavily since Christmas. He is advised that they may be in a slightly overfat condition, and wishes how he can get them right. The expert who gave such advice should surely be able to tell him that, but I think it extremely unlikely that the pullets would be overfat. What is more likely is that the feeding has not been equal to the demands made on the birds by heavy production, consequently they have drawn rather heavily on their bodily reserves. with the result that there are fewer and smaller eggs. The best thing to do will be to increase the grain ration—make it 3 parts kibbled maize and 1 wheat.

G. V. (Croydon) asks whether a chill or too high a temperature in the incubator will start coccidiosis. No, this is not the case, the disease is due to a parasite, as has often been explained in these columns. It is, I think, quite a different case with B.W.D. where a chick with a lowered resistant power would become susceptible. With coccidiosis perfectly healthy chicks are attacked. (2) In answer to his second question, we have real evidence that the trough feeding of grain will do a great deal to prevent the neck moult in early hatched pullets. The same result has been obtained with pullets placed under artificial light.

THE YORKSHIRE FEDERATION LAYING TEST.

Report for the Sixth Month, 9th March, 1926, to 5th April, 1926

Favourable weather conditions have prevailed throughout the whole of the sixth month, and there has been a rapid weekly increase in the number of eggs laid.

The weekly returns of eggs collected were:—21st week, 3,370; 22nd week, 3,503; 23rd week 3,538; 24th week, 3,629. The total number of eggs laid during the month was 14,040. This is 3,212 more than last month, and is an increase of 29.6 per cent. The greatest number of eggs collected in one day was 540 on the 26th day, and the smallest was 453 on the 5th day of the month.

Seventeen pullets have been broody, and have been confined to the coops for an average period of four days. The health of the flock remains excellent.

6th REPORT—Period 20th Oct., 1925, to 5th April, 1926.

The pens of birds, and single birds, leading at present, with their records and with the names of the Cups for which they are competing are given below:—

For the "Daily Dispatch" Gold Challenge Cup for the pen in Classes A or B which produces the highest average per bird—Sutton and Sons, Preston (W.W.) £1 7s. 10d; J. H. and W. Brayshaw,, Cross Roads (W.W.), £1 4s. 2d.; R. Rodwell, Nelson (B.L.), £1 4s. 1d.

The "Miss Delaney" Silver Challenge Cup for the best bird in the Test, and the "Daily Dispatch" Prizes of 12 guineas, 7 guineas and 5 guineas for the three best birds in the Test.—G. H. Rayner, Grantham (W.W.), 118 eggs; Dr. J. E. Helm, Waterfoot, Lancs. (W.W.), 128; Miss Mawson, Adel (Bff. Rk.), 129.

The "Mrs. Clay" Silver Challenge Cup for Class A, Section 1, White Wyandottes.—A Snowden, Pool, 998 eggs; Dr. J. E. Helm, Waterfoot, Lancs., 940, R. Rodwell, Nelson, 785.

The "Tom Barron" Silver Challenge Cup for Class A, Section 2, White Leghorns.—R. Rodwell, Nelson, 974 eggs; Tom Barron, Catforth, 822; Lord Dewar, East Grinstead, 816.

The "Sir Donald Horsfall" Silver Challenge Cup for Class A, Section 3, A.O.V. Light or Heavy.—S. Street-Porter, Ely, Cambs. (Anc.), 795 eggs; F. R. Welch, Bewdley (Bff. Rks.), 731; W. M. Golden, Leire, Rugby (R.I.R.), 683.

The "Frank Snowden" Silver Challenge Cup for Class B, Section 4. White Leghorns.—G. W. Sutcliffe, Hebden Bridge, 571 eggs; R. H. Fryers, Bradley, Keighley, 557; W. R. Auty, Sandy, Beds., 549.

The "Allen Bros." Silver Challenge Cup for Class B, Section 5, Black Leghorns.—R. Rodwell, Nelson, 638 eggs; W. Sharp, Bell Busk, 427; J. W. Potts, Nunthorpe, 421.

The "Jack Wrennall" Silver Challenge Cup for Class B, Section 6, White Wyandottes.—Sutton and Sons, Preston, 789 eggs; J. H. and W. Brayshaw, Cross Roads, 655; G. H. Rayner, Grantham, 569.

The "Fred Simpson" Silver Challenge Cup for Class B, Section 7, Rhode Island Reds.—Miss Maddison, Dane Hill, 577 eggs; Miss D. E. Kitchin, Easton, 495; R. Rodwell, Nelson, 546.

The "Will Hamnett" Silver Challenge Cup for Class B, Section 8, A.O.V. Light or Heavy.—S. Wigglesworth, Farsley (Bf. Rks.), 584 eggs; J. W. Towler, Farsley (Bf. Rks.), 616; A. White, Malpas (Lt. Sux.), 564.

The "Yorkshire Federation" Silver Challenge Cup for Section 9, Any Variety, Light.—Mrs. Hawkesworth, Pool (W.L.), 106 eggs; S. Hartley, Haworth (W.L.), 101; C. Sturdy, Harewood (Bl. L.), 104.

The "Percy Wainwright" Silver Challenge Cup for Class C, Section 10, Any Variety, Heavy.—Miss Mawson, Adel (Bf Rk.), 129 eggs; Mrs. Hawkesworth, Pool (W.W.), 133; S. Hartley, Haworth (W.W.), 138.

The "G. R. Poole" Silver Challenge Cup for the Best Pen any colour Orpingtons, Australorps, or Rocks.—S. Wigglesworth, Farsley (Bf. Rks.), average value per bird, £1 2s. 5d.; J. W. Towler, Farsley (Bf. Rks), £1 2s.; F. R. Welch, Bewdley (Bf. Rks.), 15s. 2d.

Food Purchase Scheme.

May we state that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns, but the undermentioned are special items. Price list will be despatched to any member, if application is made to this office.

Referring to the odd cwts., which are now supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown. This is to cover the extra expenses and handling which the one cwt. business involves. If the total order amounts to 5 cwts. and over, this extra charge will not be made.

Will all members ordering under this scheme kindly note that orders received by second post on Saturdays cannot be dealt with until the following Monday.

SPECIAL OFFERS.

FISH MEAL: F.O.R. GRIMSBY and TYNEMOUTH—5 cwts. and upwards, at 16/6 per cwt.; under 5 cwt. orders at 17/3 per cwt.

UNEXTRACTED DRIED YEAST: F.O.R. GRIMSBY and TYNEMOUTH—At 20/3 per cwt. for 5 cwt. orders; 20/9 for orders under 5 cwts.

FISH MEAL, with the following analysis:—

OIL ... ... 4.5 per cent.
ALBUMINOIDS ... ... 55.60 per cent.
PHOSPHATES ... ... 16.18 per cent.

Prices F.O.R. LONDON

Under 5 cwts. ... ... 18/9 per cwt.
5 cwts. orders and upwards ... 17/9 per cwt.

FISH MEAL:—

OIL ... ... under 4 per cent.
SALT ... ... under 3 per cent.
ALBUMINOIDS ... 55/60 per cent.
PHOSPHATES ... 15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—

ALBUMINOIDS ... 35/40 per cent.
FATS ... ... 10/15 per cent.
PHOSPHATES ... 25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—

ALBUMINOIDS ... 57/62 per cent.
FATS ... ... 10/15 per cent. at 15/6 per cwt.

F.O.R. MIDDLESBROUGH.

LIMESTONE GRIT: F.O.R. BRADFORD (three grades)—Poultry, Medium. Chicken. In minimum orders of 5 cwts. at 2/6 per cwt.; single cwt. included in order for other goods from Bradford, at 2/9 per cwt.

PURE UNEXTRACTED DRIED YEAST:—
F.O.R. LIVERPOOL ... ... at 21/0 per cwt.

SUSSEX GROUND OATS at 12/9 per cwt. F.O.R. Birmingham.

FISH MEAL	17/9 F.O.R. SWANSEA.
,, ,, ...	16/6 F.O.R. TYNEMOUTH.
,, ,, ...	17/9 F.O.R. GRIMSBY.
,, ,, ...	16/9 F.O.R. MIDDLESBRO'.
MAIZE GRITS	11/- F.O.R. LONDON.
,, ,, ...	11/- F.O.R. IPSWICH.
MAIZE GERM MEAL ...	8/9 F.O.R. LONDON.
,, ,, ,, ...	8/9 F.O.R. IPSWICH.
S. G. OATS	12/6 F.O.R. SUSSEX.
MEAT AND BONE MEAL	15/3 Carriage Paid.
MEAT MEAL	15/9 Carriage Paid.
ALFALFA	11/9 F.O.R. LONDON.
,, ...	11/3 F.O.R. LONDON.
BONE FLOUR	9/6 F.O.R. LONDON.

	MASHES					CHICK FEED		MIXED	S G.	FISH	MEAT	MEAT & BONE
	Layers	Growers	Breeders	Chick	Fattening	No. 1	No. 2	CORN	OATS	MEAL	MEAL	MEAL
Liverpool	11/-	11/3	12/3	12/3	12/3	17/-	14/9	12/9	14/9	20/3	18/9	14/9
London	11/9	11/9	12/9	13/-	12/9	17/9	16/3	14/6	13/6	17/6	...	13/6
London	11/-	11/-	12/-	12/3	11/9	17/-	15/-	...	...	...	...	...
Leith	10/3	10/3	10/9	11/3	11/3	16/3	15/9	11/9	13/-	18/9	...	13/3
Leicester	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	13/9	21/-	...	17/-
King's Lynn	11/3	11/3	11/6	12/6	11/9	17/-	15/-	...	15/-	19/3	...	13/9
Belfast	12/9	12/3	13/-	14/-	...	18/-	16/9	...	13/3	20/-	15/-	12/9
Bristol	11/3	11/3	12/-	12/9	12/-	17/9	15/9	14/-	13/3	17/9	..	12/9
Southampton	11/6	11/6	12/6	12/6	11/9	17/3	15/3	11/3	14/3	21/6	..	14/3
Plymouth	12/-	14/-	12/6	14/3	11/9	19/-	16/9	...	15/9	20/9	...	16/9
Aberdeen	12/-	12/6	13/6	13/6	13/-	15/6	14/3	...	12/6	17/6	..	12/6
Harrogate	11/6	11/6	12/3	12/9	12/9	17/6	15/3	...	13/6	20/-	...	13/6
Glasgow	12/-	12/-	12/-	13/-	12/-	17/-	15/-	11/3	13/3	20/-	17/3	15/3
Staffs	11/-	11/-	11/9	11/9	11/3	17/-	14/9	...	13/6	19/3	...	13/3
Herts	11/-	10/3	11/3	11/-	11/6	16/6	15/6	...	...	17/9	...	14/6
Bradford	11/6	11/6	12/3	12/9	12/3	17/6	15/9	...	...	17/6	...	14/-
Birmingham	11/6	11/9	12/6	12/9	12/3	18/-	16/-	12/6	12/9	19/-	...	13/9
Greenock	11/-	11/6	12/-	12/9	12/9	17/9	15/9	...	14/9	20/3	15/6	15/-
Tewkesbury	11/3	11/3	12/-	12/9	12/-	18/-	15/-	11/9	13/-	20/3	...	15/-
Bolton	11/9	11/9	12/9	12/9	12/-	17/-	15/3	...	13/6	21/6	...	14/-
Middlesbrough ...	11/3	11/-	11/3	12/3	12/-	17/6	16/3	...	13/6	17/-	...	12/9
Mid Sussex	11/3	11/-	11/6	12/3	11/6	17/3	15/3	...	12/6	...	...	...
Sussex (East) ...	11/6	11/9	12/6	12/-	12/3	17/6	15/6	...	...	...	...	...
Sussex	11/6	11/6	12/6	12/6	12/6	18/-	14/9	13/-	12/9	19/6	...	18/-
Essex	11/-	11/-	11/9	14/3	...	17/9	15/9	...	13/6	...	...	...
Birkenhead	10/9	11/-	11/6	11/9	11/6	17/3	15/3	...	...	19/9	...	13/9
Isle of Wight	11/9	12/-	13/6	15/-	...	18/6	17/6	12/6	16/-	21/-	...	15/-

It would be of very great assistance if members when ordering would always **STATE STATION** they wish goods despatched to, also their **NEAREST DEPOT.**

G

ggs," Wednesday, May 26th, 1926.

EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH).

Registered at the G.P.O. as a Newspaper.
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Edited by TOM NEWMAN.
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Six Months	"	"	6/4
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White Leghorn Hen,

Winner of 1st Class Certificate, Harper Adams, with 244 1st grade eggs in 48 weeks, 101 2nd year to date in under 5 months.

50 Strong Chicks hatched out from 54 Eggs set in Incubator.

Weight at end of Breeding Season, 5 lbs. 11 ozs.

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The Breeding Season is now over and we can offer select

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TYPE L,
60'×15'
CAPACITY 250

BALANCED, SELF-INDUCED VENTILATION.
Not Ridge Ventilated.

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TO meet the constantly increasing demand even more promptly than heretofore and to further improve our SERVICE, additional works have been opened in London where we standardise in our "All 1 inch" specification, *i.e.*, Floor, Walls and Roofs, or with "CAEMENTEX" roofs which are equivalent to 4 inch thickness of solid timber—no joints or cracks, non-conductive, water-proof, everlasting.

A solution to the difficulty touched upon by Mr. Tom Newman in his Editorial of March 17th is to be found in our patented "Range Tracks" which permit moving of houses up to 125 birds capacity—every foot of ground ranged without fouling of soil surrounding houses.

Call and see Specimen Houses at BUSH HOUSE, ALDWYCH, W.C., or write:— **W. H. COLT, Ltd.,** BETHERSDEN, near ASHFORD, KENT.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, MAY 26th, 1926.

Editorial.

DISEASE AND ITS PUZZLES.

We are publishing the following letter, because it is typical of a large number which we receive, and represents the views of a vast number of poultry-keepers, and we may add the experience of a great number. If we blunder in our ignorance, will it be understood that we are not attempting any criticism, but seeking an explanation :—

> " I will state my views on a subject of which I have had sorry experience—namely, B.W.D. and Coccidiosis. I have had batches of chicks hatch out from hens which have been strictly trap-nested (by myself), and the chicks rung at hatching time and entered in my book. The number in one hatch was 81 chicks, the losses at present (eight weeks old) are four, including two left out all night, one I killed the day I put them under the hover, and one recently suffocated.
>
> Another batch of 121 (bred exactly the same) put under the same hover, under same conditions, looked like a lot of mice dodging in and out, until about the sixth-seventh day when I got a shock, about 40 day dead, the remainder (although a lot of them looked really robust) I killed and burned. A few of the latter were sent for post-mortem examination. Result—Coccidiosis.
>
> A further batch again strictly marked, put into a Hearson brooder (about 60). All went well until about 14 days old, when they commenced to be ricketty, and of course died, although (and this is a most notable fact) the survivors are just as good in appearance as any unaffected lot.
>
> This is a point I cannot agree with, when I see correspondents referring to finishing the lot off. I will make my case as short and clear as possible, by saying some batches rear nearly 100 per cent., some none per cent., and others vary considerably. Now what I cannot fathom is how this trouble arises, seeing that I have run the chicks on unlimited range (all being well in some cases), also I have kept them inside entirely, and yet the post-mortem result is the same. I must mention one fact. On one occasion I got a batch from a machine which had been fumigated and put them into a new house, and they (80 odd) went wrong on the fifth day (never been outside at all), and yet the post-mortem examination report was coccidiosis. I have followed the advice given by the expert on disease, and your advice by keeping the chicks in until six weeks old, but I have found no relief.
>
> The conclusion I draw is, that individual birds are carriers at different periods, and that one cannot describe the actions of the chicks affected with B.W.D. and the other, as I have watched them keenly and find the movements are alike. Furthermore, the droppings will vary considerably, some white, some yellowish-brown, and some as clear as possible, while an alert chick at night is dead next morning. I have had a taste of B.W.D., but if I am to give preference to one of the two, I should say B.W.D., as coccidiosis must be in the egg and chicks become affected later in life.
>
> Yours truly, HADBOTH."

We need say little on the question of B.W.D., as the difficulties of the average poultry-keeper have already been explained in these columns. We know, for example, that infected eggs are laid by " carrier " hens, that every egg laid by such a hen is not necessarily infected, that healthy and rearable chicks have been hatched from eggs laid by carrier hens, that the Blood Agglutination Test, while of extreme value, and at present the only known means of eliminating the carrier hens, is not infallible, and also, what every poultry-keeper should know—that to be absolutely certain that the losses sustained are from B.W.D. a bacteriological examination is made, and this takes four days.

Even then results are confusing, and apparently contradictory. As, for example, heavy losses were sustained by a lady member of the S.P.B.A., four chicks were sent for examination ; the report was NEGATIVE. Losses were greater the next two days, so four more were sent, and the report was B.W.D. Both lots were from the same brood. If one chick only had been sent we might have been able to reconcile the two reports.

Again, a member buys 100 eggs, which he incubates with his own eggs in the same incubator ; 52 chicks result, which are reared with his own chicks, taken from the same incubator, and which are of the same age. All the conditions are exactly the same, the chicks alone coming from two different sources. There is, however, a very heavy mortality with the chicks from the bought eggs, so heavy in fact that they are nearly wiped out. This is diagnosed as B.W.D. BUT—and this is important—the member loses none of his own chicks, which, with such a highly infectious disease as B.W.D., is, to say the least of it, curious.

Here again is another case in which obviously it was the hover or brooder which was at fault. The mortality was, one can almost certainly say, due to the crowding and sweating, and yet it is diagnosed B.W.D. There is the possibility, of course, that the chicks sent for post-mortem examination did die from that complaint, but it will be agreed that it was most extraordinary that the successive broods should be immune from the trouble :—

> "I was greatly interested in Mr. Brain's letter, which you published in the last number of 'Eggs,' especially what he said about B.W.D. being latent in all birds and developed in suitable conditions. I have had an experience this year which seems rather to bear that out.
>
> My first hatch, from my own eggs, was a good one, the chicks large and healthy. I put them under a large-size hover which I had used last year, but never before for baby chicks. Whatever I did, I could not prevent the chicks from crowding and sweating, and they never seemed really comfortable at night. I also considered the ventilation quite unsatisfactory. After about three days the chicks began to die off, and I sent some up for a post-mortem. I was told it was B.W.D. It is the first time I have had this trouble, and I lost all but a dozen or so of that hatch—out of 120.
>
> I had already, before I received the post-mortem report, filled my incubators with eggs from the same pens, and had not specially disinfected the machine.
>
> After much consideration I decided to let the hatch go on, and see whether the chicks could be reared, but I did not feel very hopeful. I thoroughly disinfected the brooder house, scrapped the hover I was then using, and replaced with those of another make ; also brooders. The hatch was just the same as the previous one, 118 chicks from 150 eggs. They were taken from the incubator and placed in the brooders when 24 hours old, and not fed until 48 hours old, and then very sparingly indeed for the first week. (I was inclined to think that I had over-fed the first lot.) Being a confirmed homœopath, I gave them in their drinking water from the first homœopathic medicines, calculated to increase their resistance to the disease. This I continued till ten days old. I have been most satisfied with the brooders I am using, the ventilation seems all that could be desired—the other chicks never crowded or sweated, and always looked and sounded happy. I reared the whole of tha hatch but two, one weakly one I killed the second day, and the other was killed by accident.
>
> Since then I have had other hatches from eggs from the same pens. The chicks have all been reared either in the brooders or under hens, and except for a slight outbreak of gapes I have had a more successful rearing season than ever before. I have taken the precaution of giving the medicines to all chicks until at least a week old.
>
> I feel I must apologise for troubling you with such a long account of my experience with B.W.D., but I have been puzzled to account for it, as, after receiving the post-mortem report, I looked forward to a most trying and disappointing rearing season. I do not, however, feel at all inclined to complain at having been mistaken.
>
> May I just add a few words to express my great appreciation of the S.P.B.A., and of the constant practical help I get from your most interesting paper. I never cease to be grateful to a friend who persuaded me to join the S.P.B.A., rather against my will. I had not been a member many weeks before I realised what an eminently sensible thing I had been advised to do!
>
> Perhaps I should add that I do not think the chicks that died from B.W.D. can have been infected from outside. It was my first hatch ; the brooder house was absolutely new, and owing to bad weather they were kept indoors entirely for the first week. I do not think the incubator or hovers can have been at fault that way, as they were thoroughly disinfected at the end of the last season, and again this year before being used."

(To be Continued.)

Lyonshall, Herefordshire.
11th May, 1926.

Hearty congratulations on getting "Eggs" out last week. A splendid effort.

PHILIP CLAPHAM.

The Poplars, Harlow Common, Essex.

Dear Sir,—Allow me to congratulate you most heartily on your noble efforts which resulted in the compilation of "Eggs" this last week. Your difficulties must have been enormous, and it was therefore all the more welcome to receive my copy yesterday morning.

Yours faithfully,
K. S. W. DURSTON.

Appleby, Scunthorpe, Lincs.
May 11th, 1926.

Congratulations on the printing and arrival of "Eggs." I was very surprised to receive it yesterday, the 10th. OSCAR C. BROWN.

Tredrea, Perranwell, Cornwall.
May 10th, 1926.

Dear Mr. Newman,—I must write a line to congratulate you on "Eggs,", which reached here o-day. Getting one's work through as usual, regardless of trouble, is, I believe, the essence of he grit that is going to serve our country.

Yours sincerely,
G. T. WILLIAMS.

Fyfield House, Marlborough, Wilts.
May 11th, 1926.

Dear Sir,—I was so pleasantly surprised to receive the current issue of "Eggs," notwithstanding the Strike difficulties, that I feel I should like o congratulate you on your enterprise, and mention that, although I subscribe to a number of weekly and other publications, yours is the only one which has reached me since the beginning of he Strike.

Yours faithfully,
T. C. PORTER.

Woodway House, near Banbury.
May 10th, 1926.

Dear Mr. Newman,—My copy of "Eggs" is to hand to-day, and though always interesting it is more than usually appreciated on this occasion, as it is the **only** poultry paper out of five I usually get that I have seen since the issues of April 30th. heartily congratulate you and the publishers on being able to publish under the existing deplorable circumstances.

Yours faithfully,
JAS. PETTIPHER.

BERKSHIRE EGG-LAYING COMPETITION.

REPORT FOR THE SIXTH PERIOD—March 4th-31st, 1926.

Egg production has again risen during the period, an increase of 565 eggs over last period being recorded, and weather conditions have been generally suitable for egg production.

In all 3981 eggs have been laid, and were graded as follows:—Special 2234, First 932, Second 787, and 28 non-scoring, giving a total of 20.55 eggs per bird against 17.6 for last period.

The Light Breeds averaged 20.4 per bird, and the Heavy Breeds averaged 20.7 per bird. The highest number of eggs laid on any one day was 154 (March 11th), and the lowest 129 (March th).

Fifteen birds in all have been broody during the period, this number being slightly in excess of that for the corresponding period last year. One death is recorded.

Below is a list of the two leading pens in each section. Sections 1, 4, 5, 6 remain the same as for last period. Sections and 3. the third position pens of last period, have attained the second places.

Section 1—Poultry Farmers (Light Breeds).—Capt. P. Washington, Wokingham (W.L.), 3068 pts.; N. A. Rainsden, Hinksey Hill (W.L.) 2816.

Section 2—General Farmers (Light Breeds).—Admiral Clifton Brown, Faringdon (Anc.), 3036 pts.; E. L. Hogarth, Littlewick Green (W.L.), 2847.

Section 3—Cottagers (Light Breeds)—Single Birds.—J. Wentworth, Uffington (W.L.), 772 pts.; M. Charlton, Twyford (W.L.), 10.

Section 4—Poultry Farmers (Heavy Breeds).—Capt. D. W. Gunston, M.P., Spencers Wood (W.W.), 3956 pts.; L. Brummell Smith, Embrook, Wokingham (W.W.), 3787.

Section 5.—General Farmers (Heavy Breeds).—W. H. Gore, Hungerford (W.W.), 4175 pts.; Capt. T. Allen Stevens, Farringdon (W.W.), 3302.

Section 6—Cottagers (Heavy Breeds)—Single Birds.—Miss Hayhow, Shaw-cum-Donnington (Cr. Lang.), 1044 pts.; J. Rackstraw, Mortimer, Bird 248 (R.I.R.), 648.

Modern Poultry Feeding.

By TOM NEWMAN.

A correspondent has been good enough to send us a copy of Bulletin No. 54, published by the Department of Agriculture, Victoria, Australia.

There is so much interest contained in the Feeding Experiments that I am, with full acknowledgement to the Department, publishing them in these columns. Later on we may be able to analyse and comment upon them purely as a matter of interest and not in any critical spirit:—

FEEDING EXPERIMENTS—VALUE OF VARIOUS CEREALS.

The following feeding experiment was conducted at the Werribee Research Farm, starting on April 1, 1921, and concluding on March 31, 1922 One hundred and twenty pullets were divided into four pens of thirty birds each, as nearly equal in quality, age, and weight as possible. None of the best matings were included, as these were required for either single test pens, or bona-fide settlers.

All four groups were fed wet mash in the morning, and greenstuff at mid-day, but each group was fed differently as regards the grain at night, the object of the experiment being **to test the economic importance of the various cereals used on flocks of comparatively moderate quality pullets such as would be found on any average farm,** and not to establish high records from specially recorded birds.

Pen No. 1 was fed Algerian Oats (not clipped).

Pen No. 2 was fed Wheat.

Pen No. 3 was fed Barley.

Pen No. 4 was fed Mixed Grains (2 wheat, 1 oats, 1 barley).

The wet mash was made up of equal parts, by measure, bran, pollards, and greenstuff. The bran was moistened with soup made from boiled table scraps, sheep's heads, livers, etc., or else meat meal, and dried off with pollard to a nice crumbly condition when the greenstuff was added.

During the months of April, May and June no bran was available, so ground wheat and ground barley in equal quantities were used in place of bran in the morning mash. The greenstuff used was lucerne, green barley, rye grass, and outer leaves of vegetables cut fresh and put through the chaff-cutter.

Minced raw onions were fed once a week at the rate of 1½ lbs. per 100 birds. Epsom salts and sulphur were used occasionally.

HOUSING.

The birds were housed in a corrugated iron shed, divided into four pens, each containing about 160 square feet of floor space, being slightly over 5 square feet of floor space per bird.

The floor was kept covered with litter four to six inches deep, and no outside run was made available.

A dust bath was provided, whilst shell grit and charcoal were always available. Dropping boards were provided underneath the perches.

HEALTH.

Unfortunately the mortality was high, as ten died in No. 1 pen, eight in No. 2 pen, nine in No. 3 pen, and six in No. 4 pen. Sixteen of these died from unknown causes. Post-mortems were held on the farm, and one bird was sent to the Veterinary Research Institute, without definite results, although it is more than likely that (indirectly) rats were the cause, by contaminating the drinking water. Early in December a raid was made, and 182 rats were thereby killed. After that no deaths occurred. Heat caused the death of six birds on 18th November, three were cropbound, six died from ovary troubles, and two from accidents.

EGG PRODUCTION.

Month	No. of Birds	Pen No. 1	No. of Birds	Pen No. 2	No. of Birds	Pen No. 3	No. of Birds	Pen No. 4	Price of eggs
April ..	30	199	30	238	30	281	30	260	2/9
May	28	222	27	221	27	194	29	187	2/10
June ..	25	343	27	279	25	284	29	230	2/6
July ..	25	396	25	368	24	259	28	363	1/11
August ..	25	478	25	468	24	362	28	464	1/6
September ..	25	535	23	476	23	410	28	512	1/1
October ..	21	450	23	412	23	425	28	557	1/1
November ..	20	254	22	351	21	310	25	398	1/3
December ..	20	333	22	302	21	273	25	336	1/6
January ..	20	327	22	265	21	224	24	376	1/6
February ..	20	228	22	227	21	203	24	308	1/8
March ..	20	188	22	224	21	155	24	235	1/11
		3,953		3,831		3,380		4,226	

ANALYSIS OF FOODSTUFFS USED IN POULTRY FEEDING EXPERIMENTS AT THE RESEARCH FARM, WERRIBEE.

Samples on analysis were found to contain:—

	Barley	Oats	Wheat	Ground Wheat and Barley	Mixed two of Wheat: one of oats one of Barley	Bran.	Pollard
	%	%	%	%	%	%	%
Moisture ...	11.91	8.89	10 55	10.85	10.11	10.46	10.31
Ash ...	3.01	3.61	2.81	2 89	2.36	4.82	2.66
Protein ...	8.25	9.25	10.69	9.38	9.79	13.81	12.06
Fibre ...	5.39	8.97	2.72	4.11	5.38	8.91	5.08
Nitrogen free extract	69.55	61.84	71.18	70.79	69.03	58.71	66.25
Ether extract	1.89	7.44	2.05	1.98	3.33	3.29	3.64

SUMMARY.

EGG YIELD AND FEED COST.

	Pen 1 OATS	Pen 2 WHEAT	Pen 3 BARLEY	Pen MIXE
Average eggs per bird	170	150½	144⅓	157½
Average price per dozen	1/8	1/8	1/8⅔	1/7⅓
Return per bird	23/7⅓	20/10⅚	20/9⅔	21/1⅔
Cost of Feed:				
Mash	3/1¾	2/8¾	2/7½	2/5⅞
Grain	3/9¼	6/7⅔	3/3⅓	4/6¼
Total	6/11	9/4⅖	5/10⅘	7/0⅛
Profit over Feed	16/8	11/6⅖	14/10⅘	14/1½

It will be seen from the above that the Algeria Oat fed pen showed the best score, as well as th greatest profit per bird.

WEIGHT OF BIRDS.

At the commencement of the test the pullet averaged 2 lbs. 12 ozs. each. At the conclusio of the test the No. 1 pen averaged 3 lbs. 4 4-5 ozs each; No. 2 pen, 3 lbs. 9¾ ozs. each; No. 3 pen 3 lbs. 10 ozs. each; No. 4 pen, 3 lbs. 8 2-3 ozs each.

The oat fed pen showed the least gain in weight and the others were more or less equal, with fractional margin of increase in favour of th barley pen.

FOOD PRICES.

Wheat, 60 lbs. bushel—1st April to 31st January 9s. per bushel; 1st February to 31st March, 5s per bushel.

Oats, 40 lbs. bushel—All the year, 3s. per bushel

Barley, 50 lbs. bushel—1st April to 31st December, 3s. 6d. per bushel; 1st January to 31st March 3s. 3d. per bushel.

Bran and Pollard—£6 10s. per ton throughou the year.

Crushed Wheat, 60 lbs. bushel—April, May an June, 9s. 4d. per bushel.

Crushed Barley, 50 lbs. bushel—April, May an June, 3s. 10d. per bushel.

No charge was made for greenstuff or meat scraps.

CONCLUSIONS TO BE DRAWN.

It may reasonably be concluded that Algerian oats are a thoroughly satisfactory feed, and should be more generally used than is the case at present As was anticipated, barley gave the poorest egg yield, but the birds so fed laid well at the time of the year when eggs were dearest. Barley might, therefore, be fed with advantage during the winter months.

FEEDING EXPERIMENTS.

(By courtesy of the Department of Agriculture, Victoria, Australia.)

An experiment to test the advisability of allowing birds free access to food at all times, as comared with the ordinary practice of feeding at egular intervals, was conducted at the State Research Farm, Werribee, during the twelve months ended the 31st March last.

Seventy-two White Leghorn pullets, each of uality about equal to that of an ordinary farm ock (none of the birds chosen was from a single mating) were divided into two lots of 36 each, nd each pen was given food of the same ingredient hroughout the year.

FOOD USED.

The birds in both pens were given dry mash in hoppers, which were open at all times. This mash consisted of: Bran and pollard, equal quantities by measure, meat meal 10 lbs. to every 100 lbs. of bran and pollard, and about 3 per cent. powdered charcoal. In addition, a grain mixture of three parts Algerian oats to two parts wheat was fed to each pen.

To No. 1 pen the grain was fed in a hopper always open, and the birds were allowed greenstuff, whole not chaffed, from a wire basket, which was kept well supplied.

The birds in No. 2 pen had their grain scattered in the litter, and chaffed greenstuff was fed them at midday.

In order that the results might approximate to those that would have been obtained had the experiment been conducted on an ordinary farm, no other feed than that mentioned, which is obtainable almost anywhere in the State, was given the birds. A variety would have been greatly relished by them, and would probably have increased the egg production, but as oaten pollard, barley, pollard pea meal, bullocks' livers, etc., are not easily procurable by a large number of settlers at a distance from the metropolis, none of these were fed to the birds.

The greenstuff used was green barley, rye grass and rape during the winter months, and lucerne all the summer. Minced raw onions were fed once a week—about three-quarters of a pound to each pen. Epsom salts and sulphur were used when thought advisable. Shell grit and granulated charcoal were always available, and a dust bath was provided in each pen.

HOUSING.

The birds were housed in a corrugated iron shed facing east. Each pen had a floor space of about 260 square feet—a little over seven square feet to the bird—and they were kept in the pen throughout the test, no outside run being made available. The floor was covered with from four to six inches of litter. Dropping boards were used underneath the perches.

HEALTH OF THE BIRDS.

The general health of the birds was good throughout the test.

In No. 1 pen (continuous feeding) one bird became blind, and two went light; these three were destroyed.

In No. 2 pen one bird was found dead, one died from crop trouble, and one contracted disease and was destroyed.

FOOD CONSUMED AND ITS COST.

PEN NO: 1—Continuous Feed.

	Quantity.	Price. s. d.	Value. £ s. d.
Bran	16¾ bus.	1 10 per bus.	1 10 8½
Pollard	28 ,,	1 10 ,, ,,	2 11 4
Meat Meal ...	88 lbs.	0 2 ,, lb.	0 14 8
Oats	22¾ bus.	4 0 ,, bus.	4 11 0
Wheat	12 1/3 ,,	6 2 ,, ,,	3 16 0½
			13 3 9

PEN NO: 2—Regular Feeding.

	Quantity.	Price. s. d.	Value. £ s. d.
Bran	17½ bus.	1 10 per bus.	1 12 1
Pollard	29½ ,,	1 10 ,, ,,	2 14 1
Meat Meal ...	93 lbs.	0 2 ,, lb.	15 6
Oats	28 bus.	4 0 ,, bus.	5 12 0
Wheat	12½ ,,	6 2 ,, bus.	3 17 1
			14 10 9

During this period they cost a little over 4d. per bird more for feed, but returned about 2s. 3d. per head in value of eggs, as shown in the following table:—

EGG PRODUCTION AND FEED COST, APRIL 1st to JULY 31st.

PEN	No. of eggs	Value	Cost of Feed Mash	Cost of Feed Grain	Total	Profit over feed
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
No. 1 Continuous	1756	17 13 2¾	(318 lbs.) 1 11 3	(795 lbs.) 4 0 4½	5 11 7½	12 1 7¼
No. 2 Regular ..	1368	13 1 3	(330 lbs.) 1 12 6	(670 lbs.) 3 7 9	5 0 3	8 1 0

One of the conclusions to be drawn is that pullets when starting to lay require more food than is usually given to them in early winter, as, although the birds in No. 2 pen had a dry mash hopper always open and as much grain in the evening as they would pick up, those in No. 1 pen, where food was always available, consumed 113 lbs. more mash and grain for the four months.

The green feed was not weighed to the birds. It was noted that the birds in No. 1 pen consumed the greater quantity of this—a considerable amount of it just before going to roost—and, although their basket was kept well supplied with fresh greenstuff (whole) every day, they would eat almost as much chaffed greenstuff at midday as the members of No. 2 pen, which were given as much as they would pick up.

It is reasonable to conclude that this greenstuff taken by the birds in No. 1 pen the last thing at night, on an almost full crop of mash and grain, was an aid to digestion, and probably was an important factor in the higher egg production.

FOOD PRICES.

As most of the food used was grown on the farm, and the balance purchased in large quantities at wholesale rates, it was considered advisable to calculate cost of food on prices which were supplied by one of the leading poultry farmers in the State. They are as follows:—Bran, 1s. 10d. per bushel; pollard, 1s. 10d. per bushel; oats, 4s. per bushel; wheat, 6s. 2d. per bushel.

Meat meal cost 2d. per lb.

Greenstuff was not taken into consideration.

MAIZE FEEDING EXPERIMENT.

It is the opinion of a number of people who keep poultry that maize can be fed with safety only in the winter months, and that it is dangerous, or at least harmful, to use it in summer.

To test the effect of feeding a high percentage of maize throughout the year, 36 birds of equal quality to those used in the above-mentioned experiment were housed in the same building and treated in an exactly similar manner, except for the feed ration. This test, too, was for a period of twelve months. The birds in the pen were fed on dry mash, in hoppers always open, which was composed of maize meal, bran, and pollard, equal quantities by weight, to every 100 lbs. of which was added 10 lbs. of meat meal and 3 lbs. of charcoal (powdered).

The grain ration, which was scattered in the litter, consisted of three parts crushed maize and one of wheat. Chaffed greenstuff was fed at midday. There were three deaths—one bird went light and was destroyed in October, one was found dead in December, and one died of crop trouble in January. None of the complaints in these cases could be attributed to the maize. Otherwise the health of the birds was good throughout the year.

FOOD CONSUMED AND ITS COST.

Food	Quantity	Price		Value		
		s.	d.	£	s.	d.
Maize Meal ...	16½ bushels	2	4 per bush.	1	18	6
Bran ...	16½ ,,	1	10 ,, ,,	1	10	3
Pollard ...	16½ ,,	1	10 ,, ,,	1	10	3
Meat Meal ...	99 lbs.		2 ,, lb.	0	16	6
Crushed Maize	24½ bushels	6	0 ,, bush.	7	7	0
Wheat ...	7½ ,,	6	2 ,, ,,	2	6	3
				15	8	9

EGGS PRODUCED AND THEIR VALUE.

Month	Price of eggs per doz.		No. of birds	No. of eggs laid	Value			Production o. birds	
1922	s.	d.			£	s.	d.	s.	d.
April ...	2	6	36	326	3	7	11	1	10.6
May ...	2	9	36	285	3	5	4	1	9.8
June ...	2	2	36	422	3	16	2	2	1.4
July ...	2	4	36	463	4	10	0	2	6.0
August ...	1	4	36	526	2	18	5	1	7 5
September	1	4	36	579	3	4	4	1	9.5
October ...	1	3	35	625	3	5	1	1	10.3
November	1	2	35	562	2	14	8	1	6.7
December.	1	3	34	487	2	10	9	1	5.9
1923									
January...	1	5	33	398	2	7	0	1	5.1
February	1	7	33	391	2	11	7	1	6.8
March ...	1	10	33	372	2	16	10	1	8.6
			$34\frac{11}{12}$	5436			£1	1	4

SUMMARY.

EGG YIELD AND FEED COST.

Average Number of eggs per bird	Return per bird			Cost of Feed				Total		Profit over cost of Food	
				Mash		Grain					
	£	s.	d.	s.	d.	s.	d,	s.	d.	s.	d.
156	1	1	4	3	3.6	5	6.5	8	10.1	12	6

The result of this experiment tends to show that maize fed in conjunction with other foods can be used with safety at all seasons of the year.

As maize is now being grown in larger quantities each year in many parts of the State, it is probable that it will prove economical as a grain food in districts in which it can be procured at a reasonable price.

The fact that these birds did not suffer in any way is reflected by their egg production for the last two months of the test. A reference to the table of egg production of the several pens shows that the maize-fed pen produced during the months of February and March five and a half dozen eggs more than the No. 1 pen (continuous feed), and seven and three-quarter dozen eggs more than No. 2 pen (regular feed).

EGGS PRODUCED AND THEIR VALUE,

No. 1 Pen—Continuous Feed.

Month	Price of eggs pe doz.		No. of birds	Eggs laid	Value			Production per bird	
1922	s.	d.			£	s.	d.		d.
April ...	2	6	36	337	3	10	2½	1	11.4
May... ...	2	9	36	405	4	12	9¾	2	6.9
June ...	2	2	36	500	4	10	3¼	2	6.1
July ...	2	4	36	514	4	19	11¼	2	9.3
August ...	1	4	35	642	3	11	4	2	0.4
September ...	1	4	33	706	3	18	5¼	2	4.5
October ...	1	3	33	717	3	14	8½	2	3.1
November ...	1	2	33	567	2	15	1½	1	8.0
December ...	1	3	33	547	2	16	11¾	1	8.7
1923									
January ...	1	5	33	482	2	16	10¾	1	8.6
February ...	1	7	33	352	2	6	5¼	1	4.9
March ...	1	10	33	345	2	12	8½	1	7.2
			34⅙	6114	42	5	10¼	£1 4	7

No. 2 Pen.—Regular Feeding.

Month	Price of eggs per doz.		No. of birds	Eggs laid	Value			Production per bird	
1922	s.	d.			£	s.	d.	s.	d.
April ...	2	6	36	283	2	18	11½	1	7.6
May... ...	2	9	36	191	2	3	9½	1	2.6
June ...	2	2	36	385	3	9	6¼	1	11.2
July ...	2	4	36	509	4	18	11¾	2	9.0
August ...	1	4	36	662	3	13	6¾	2	0.5
September ...	1	4	36	690	3	16	8	2	1.5
October ...	1	3	34	687	3	11	6¾	2	1.2
November ...	1	2	34	562	2	14	7¾	1	7.2
December ...	1	3	33	491	2	11	1¾	1	6 6
1923									
January ...	1	5	33	540	3	3	9	1	11.1
February ...	1	7	33	392	2	11	8½	1	6.9
March ...	1	10	33	279	2	2	7½	1	3.5
			34⅔	5671	37	16	11	£1 1	8.9

SUMMARY.

EGG YIELD AND FEED COST.

	Average No. of eggs per bird	Return per bird			Cost of Feed Mash		Grain		Total		Profit over cost of Feed	
No. 1 Pen		£	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Continuous Feed	179	1	4	7	2	11.2	4	9 4	7	8.6	16	10
No. 2 Pen												
Regular Feed ...	164	1	1	8.9	2	10.0	5	6.6	8	4.6	13	0½

It will be seen that the birds in No. 1 pen, which had their food before them continuously throughout the twelve months, produced the largest number of eggs, and showed the highest profit per bird. They made their greatest gain during the winter months, April 1st to July 31st, the time at which eggs bring the highest price in Victoria.

"DAILY MAIL" EGG-LAYING TEST, 1925-26.

REPORT FOR SIXTH MONTH—8th March to 4th April, 1926.

The seasonal rise in production made further progress during the sixth month, but it is more than probable the high point for this Test has been reached. The performance of the first cross pullets was unusually good, and their average for the month works out at 21.73 eggs per bird, while the average of the first cross hens and the pure-bred hens was 18.94 and 15.57 respectively.

For the month the best pen score amongst the first-cross pullets was 171 eggs—all first grade—by Rhode Island Reds x Anconas. In that section the Prince of Wales' pen of Australorps x Rhode Island Red, with only five birds, put up the very fine record of 126 eggs (one second grade), making an average of 25.2 eggs per bird in the 28 days. This pen is making a great fight to retain premier position, which it has held from the outset, although during the last three months it has been so seriously handicapped by the loss of two birds. It still has a lead of 11 eggs, but this cannot possibly carry it through another month.

White Leghorns made the highest score (141 eggs, of which three failed to reach the standard) in the pure-bred hen sections and White Wyandotte x White Leghorns and Rhode Island Red x White Leghorns, each with scores of 142 first-grade eggs, headed the list in the first cross hen section.

A number of changes are shown in the list of leading pens, and several pens appear there for the first time.

There was a further improvement in the size of the eggs, and the percentage of first-grades now stands at 96.92. Broodiness was more prevalent, and during the month 40 birds were placed in the broody coops.

The general health of the flock was good, but nine birds died, and the post-mortem reports on which showed that six of these were due to ovarian troubles.

EGG PRODUCTION OF LEADING PENS.

Figures are Eggs and Points respectively:—

Section 1—Leghorns—Any Variety (7 Hens).—Balsham Manor Farm, Cambridge, 588, 510; R. A. and A. M. Johnson, Chalford, Glos., 515, 498, J. Potts, Nunthorpe, Yorks, 452, 440; Walter Crabtree, Clitheroe, Lancs., 431, 431.

Section 2—Wyandottes—Any Variety (7 Hens).—W. and T. Salt, Enderby, Leicester, 515, 502; A. K. Speirs Alexander, Norwich, 474, 473; A. Hughes, Malpas, Cheshire, 472, 467; H. D Barley, Birmingham, 451, 444.

Section 3—Rhode Island Reds or Light Sussex (7 Hens).—B. A. Wolryche-Whitmore, Stamford, 472, 466; A. A. Plimpton, Beverley, E. Yorks, 407, 404; G. B. Metcalfe, Lechlade, Glos., 439, 404; F. R. Welch, Bewdley, Worcs., 418, 399.

Section 4—Any Other Breed (7 Hens).—Wm. Hamnett, Blackpool, 430, 427; P. Mills, Bishops Castle, Salop, 355 354; Capt. H. C. Mackenzie, Herne Bay, 355, 352; A. Mansell, Thame, Oxon, 352, 348.

Section 5—First Cross Hens competed in "Daily Mail" Test, 1924-25 (7 Hens).—P. E. White Market Drayton, Salop, 570, 555; H. Sutton and Sons, Preston, 557, 550; Sydney Smith, Nottingham, 495, 494; Warwick Rogers, Market Drayton, Salop, 505, 492.

Section 6.—Any First Cross (7 Pullets).—H.R.H. the Prince of Wales, Duchy of Cornwall Farm, 678, 674; Albert V. Wallis, Clanfield, Oxon, 677, 663; A. Mansell, Thame, Oxon, 752, 629; Mrs. H. Burkinshaw, Binbrooke, Lincs., 640 610.

WYE COLLEGE COUNTIES LAYING TRIALS, 1925-26

(Kent C.C. and Surrey C.C.), held at

THE SOUTH-EASTERN AGRICULTURAL COLLEGE, WYE, KENT.

REPORT FOR SIXTH PERIOD (4th March to 31st March, 1926).

With the close of this period the half-way mark of the current trials has been reached, and the records of the flock show an average production of 90.03 eggs per bird for the first half year of 24 weeks. Throughout the sixth period weather conditions were ideal, and the flock improved their rate of production over the previous period by 763 eggs. The number of eggs laid during the month was 4,671, which brings the total number of eggs laid up to date to 21,455.

Health.—During the period broodiness has become more prevalent and there have been 32 birds through the broody coops. Four birds did not lay during the month, three of which have not laid since the commencement of the trials.

General.—The following two pens laid the highest number of scoring eggs for the period, their totals being 112 eggs each:—

Pen No. 10, White Wyandottes, belonging to Messrs. F. and T. Neame; Pen No. 32, White Leghorns, belonging to Lady Lugard.

The pen which gained the highest number of points was Pen No. 37, White Wyandottes, belonging to Messrs. Hudson Bros., the total being 624 points.

The following birds each laid 26 scoring eggs during the period:—WW. No. 26, WW. No. 47, R.I.R. No. 73, Light Sussex No. 76, Buff Rock No. 114, WW. No. 175, R.I.R. No. 206, Light Sussex No. 222, Light Sussex No. 226, Light Sussex No. 238.

Three birds gained the highest number of points for the period with a total of 156 points each. These were:—R.I.R. No. 73, belonging to W. K. Martin; Light Sussex No. 76, belonging to Mrs. M. C. Cowen; R.I.R. No. 206, belonging to H. Gosney,

SUMMARY.—Appended is the summary of positions of the leading pens up to date. Figures are eggs and points to date respectively.—

KENT.

White Leghorns.—Dr. Harbord, 495, 4322; H. S. Godsmark, Esq., 454, 3958.

White Wyandottes.—H. M. Moore, Esq., 533, 4700; Messrs. F. and T. Neame, 522, 4546.

R.I.R.—The Misses Jones and Atkins, 504, 4319; R. Freeland, Esq., 473, 3912.

Light Sussex.—Mrs. K. C. Cowen, 494, 4215; Mrs. M. Crookes, 478, 3920.

A.O.V. (Sitting).—Messrs. Campkin Bros. (Bf. Rks.), 428, 3497: Mrs. M. Crookes (Bf. Rks.), 360, 3181.

SURREY.

White Leghorns.—J. B. Bantoft, Esq., 528, 4544; Lady Lugard, 525, 4431.

White Wyandottes.—H. J. Willis, Esq., 598, 5175; Burrows Lea P. Farm, 556, 4540.

R.I.R.—A. Kirsch, Esq., 513, 4352; A. Brown, Esq., 418, 3517.

Light Sussex.—Burrows Lea P. Farm, 503, 3921; H. W. Homewood, Esq., 488, 3848.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

W. B. (Stoughton) has pullets which are suffering from thirst and diarrhoea. Three have died, and he asks if I can tell him what is the cause. Evidently there is something wrong with the feeding, but here again I have no details, and it is so impossible to help under these circumstances. Last week we traced a similar case to excess of salt. This had been added to some house scraps, but I don't know whether "W.B." has been using house scraps, or has bought some salt beef from a butcher as someone else did. The probability is that he is using some cheap fish meal, and this would cause the trouble. (2) He asks which is the better layer, the Buff or Barred Plymouth Rock. On this side of the water, I should say the Buff most decidedly, but in the States many strains of the Barred are equal to the Buffs.

New Reader (Dartford). If the breeder tells you that he has bred White Leghorns for twelve years, and is now giving them up, because he finds that they are losing size and vigour, you should blame him and not the breed. How can you call him an "expert" if this occurs? They would not be losing size and vigour if they had been properly bred. If he had been an expert there would have been an improvement in his stock. The White Leghorn is as good as ever, and if you have a fancy for it, don't let this man influence you. (2) You have done well to rear your chicks with such a small loss, but don't increase the meat meal in the mash, and it would be advisable to reduce the maize meal by one half and increase the middlings in the same proportion.

Interested (Newcastle) asks (1) whether the embryo can stand a higher temperature during the early days of incubation than it can later on? (2) Whether high temperatures have any effect on the date of hatching? (3) What the effect of moisture is on date of hatching? (4) He has been told that young stock do not develop so rapidly or so well in a very dry year as in a wet one. (5) That late-hatched chicks do not lay such large eggs as their earlier hatched sisters; he asks if this is true, and, if so, why? (6) That fish meal causes liver disease? (7) That it is a mistake to mate for egg production a cockerel which is slow to mature?—In answer to the first question. The embryo can stand a much higher temperature during the first stages of incubation than later, this has been definitely demonstrated by Reaumur. (2) High temperatures (over 105 degrees Fahr.) result in premature hatching, with a high mortality owing to most of the chicks not absorbing the yolk. (3) Excess of moisture results in delayed hatching, and of course a high percentage of dead-in-shell. (4) In a very dry year young stock do not develop so well as in a wet year, prolonged drought very materially affects the quality of the green food as well as the supply, and green food is necessary to healthy development. (5) This is quite correct. Late-hatched chicks do not lay eggs so large as their earlier hatched sisters, neither have they the size or vigour. This is probably due to the egg from which they are hatched being inferior to that of the earlier ones. (6) Absolutely incorrect. Excess of animal protein will cause kidney trouble, and the liver eventually is affected, but a good brand of fish meal, if not fed in excess, is not more likely to cause this trouble than anything else. (7) This is correct, high fecundity and early maturity are linked, conversely we find that the slow-maturing bird is a very poor layer, early maturity is inherited.

Incubator (Forfar). The eggs arrived safely, the cause of the failure to hatch was very evident—excess of moisture. The chick was too large for the egg, was cramped for room, and could not break through. This is generally the case when there is an excess of moisture, and it also explains the delay in hatching the other eggs; it had nothing to do with the texture of the shell, as you suggest. Under the circumstances it would not be advisable to supply moisture until the fifteenth day next time. Your friend who obtained a better hatch by dipping the eggs in water at blood heat on the nineteenth day was probably working under quite different conditions to yours. He has not solved the dead-in-shell problem. Scores of people claim to have done that, but it still exists. (2) Your friend may laugh at the idea that millet is indigestible, and responsible for a heavy chick mortality; just let him laugh, laugh till he cries.

Sentor (Cumberland). I examined the mash you sent; the quality of the ingredients is excellent, and I have read all you have to say as to absence of fibre, etc., but the fact remains that, in spite of all your arguments, your chick mortality has been exceedingly heavy. Post-mortem experts say, "Organs healthy, no disease, but unabsorbed yolk." It was a mistake to feed this mash so early, it has not sufficient bulk, and the trouble arose because the chicks were overfed during the first week. The yolk was unabsorbed, and they died of digestive trouble from this cause. If you add two measures of good bran to every measure of the mash, you will not have further trouble, but even then I would not let the chicks have it constantly before them until the seventh day. (2) This talk of stock from the South not being hardy enough for your Northern climate is sheer nonsense. Look at the laying tests in the North, you will find plenty of Southern birds doing well there.

Crossbred (Northants) is very cross, because he bought sex-linked Brown Leghorn-Light Sussex day-olds last year and the egg production has been very disappointing. He had expected far better results, and wants to know why he didn't get them. Well, you can't expect to get heavy egg production just because you cross two breeds, and, presumably cross-bred, they were bred from very poor producers. If you had two quarts of milk, each adulterated with the same quantity of water, you wouldn't expect the quality to be improved by mixing the one with the other. You should have ascertained how your chicks were bred before you bought them. The high-fecund factor is just as important when you cross two strains as when you mate two pure-breds when egg production is the object. (2) The feathered leg which appears in some of the pullets is a case of reversion. The Light Sussex was derived from the Light Brahma. (3) The sample of ground oats is a very good one, and better value at the money than the so-called "Sussex" ground.

C. C. R. (Bangor). The hens have done extremely well, and will probably lay until September, then as they are no use to you as breeders it would be advisable to get rid of them. They are in their third year, and would not come into lay again until late January or February, and their yield for the year would be small, so it would not be worth while to keep them. (2) The January hatched pullets will make first-class breeders next season, mark those which come first into production, and grade by the handling and observation charts we are sending you.

"Beginner" (Carterton) writes that she hatched some Black Leghorn cockerels in mid-January. The best of them is a fine little fellow, and she had quite made up her mind to use him in next season's breeding pen, but to-day (May 3rd) he began to crow. My correspondent asks if this is too soon and "a sign of precocity you warned us against a week or two back, as likely to lead to infertility"?—This is rather precocious, but I do not think so much so as to debar him from the breeding pen. My correspondent should watch his later developments. She has also hatched a number of Leghorn-Wyandotte cross-breds, and also, without exception, they have rose-combs, and she asks: "Is this a sign that the Wyandotte in them is predominant and they are likely to be broody next year?" She asks because last year she had some, and all the pullets were single comb, and not one has been broody. No, this is not the case. Last year the probability is that the cross was made with Wyandottes which were not "pure" for rose-comb, consequently she got all single combs. This year the cross was with Wyandottes which were "pure" for rose-comb, and rose-comb being dominant to single comb nearly all the chicks have rose-combs. They are quite likely to be broody next year apart from the comb, because of the Wyandotte blood, and sometimes in a first-cross we find the cross-bred pullets are even more broody than their original broody dams. I do not think, in answer to her third question, that a Hurricane lamp hung in a house 6 ft. by 4 ft. would be sufficient to warm it for cold brooder chicks. Of course, they do not require much heat at this time of the year, but my correspondent does not say at what age they are. The hover she mentions is one of the best of the small ones. I would prefer to put it on a slatted floor. No, an exit would not be necessary for a chimney in a small house 6 ft. by 4 ft. A window open at the top would be sufficient.

E. L. (Gloucester) wishes to know how I would advise feeding January hatched pullets to prevent the neck moult or partial moult. In the first place these should be fed until they come into production on the same lines as other pullets. It should be clearly understood that you cannot feed to prevent production without preventing bodily development. Of course, one may use foods which will stimulate production, but that is a different thing. When the birds actually come into production maize meal should be omitted both from the grain and the mash feed, and animal foods should be reduced to five per cent., but the birds should be given all they will consume. The mash might be, for example, 1 lb. bran, 1 alfalfa meal, 4 middlings, ½ fish meal or meat and bone meal, 2 Sussex ground oats or one Sussex ground oats and one biscuit meal. The grain should be equal parts wheat and plump white oats, but they should have a sufficiency so that there should be enough both for production and development.

W. A. (Monmouth) writes to say that he has a very bad hatch, and that some of the chicks hatched with their "inside outside." The hatch was also two days late. These are all the particulars sent, and I am only able to suggest a possible cause—that is, excess of moisture in a badly-ventilated incubator. We cannot assume the cause to be due to too low a temperature, but my correspondent should have sent me more particulars as to stage of development of the chicks, or at least should have sent some eggs for examination. It is hopeless to attempt to advise on these matters when we have not sufficient details.

E. H. K. (Nelson) has some Black Leghorn chicks which did very well for the first twelve days. Now he says they have developed leg weakness and are a very sorry-looking lot, scarcely able to stand, moping about and with drooping wings. Eleven of them died, and there are 68 left. He has added the salt mixture which has been so often recommended in these columns, i.e., 60 parts bone meal, 20 parts common salt, 20 powdered oyster shell, to the mash with no good result, and now wants to know if he should try cod liver oil. A hopper of dry mash is always before the chicks, and the mash consists of: 2 lbs. middlings, ½ bran, ½ maize germ meal. I think my correspondent should distinguish between leg weakness, which is induced by a ricketty condition, and this trouble from which his chicks are suffering. Here the chicks are suffering from digestive trouble, and the tottering condition is not true rickets, but simply weakness induced by the inability to assimilate sufficient nutriment. He must take away the unlimited bran, and for the present I would give the chicks biscuit meal soaked in milk and dried off with middlings three times daily, and a little cooked chick food at night. The addition of a little cod liver oil would be helpful. When he has got them right by this treatment he could place them on the following dry mash:—21 lbs. bran, 10 alfalfa, 35 middlings, 21 Sussex ground oats, 14 maize meal, 8 fish meal. If possible he should give the chicks skimmed milk to drink; if this is sour all the better, and plenty of fresh green food should be supplied.

H. C. (Westgate) writes that some mid-February hatched Light Sussex were affected with rickets, according to post-mortem examination, and this was responsible for about 110 deaths out of 240 day-old chicks. They have not feathered well since the outbreak of rickets, and now at three months old several are almost perfectly devoid of feathers on the back and on the wing joints. He wants to know what would be the best treatment. I have never heard of rickets to kill such a high percentage of chicks as this, and I am wholly unable to understand it. There may perhaps be others among our readers who have had some experience of this, and may be able to express an opinion. With regard to their not feathering, and the lack of feathers on the back and wing joints, I should think from my correspondent's letter these would be mainly cockerels, and there would be nothing to be alarmed about. However, the addition of four per cent. linseed meal to the mash would assist matters. He should also be perfectly certain that the birds are free from insect life, and are sleeping in well-ventilated quarters.

POST-MORTEMS.

H. S.—The post mortem examination of the bird showed that it was affected with Fowl Typhoid, which is one of the contagious septicaemias affecting birds, and it would certainly be advisable to change the ground if possible. There is no effective treatment for this disease, but the houses and equipment should undergo intensive and periodical disinfection, with special regard to the floors and parts soiled by the droppings. A tonic such as the Douglas mixture would help to raise the general tone and might help them to resist infection, the mixture being made and used as follows: Dissolve half a pound of iron sulphate crystals in a gallon of water and add half an ounce of dilute sulphuric acid, and of this stock solution add two tablespoonfuls to each gallon of the drinking water.

J. S. F.—The post mortem examination of the pullet showed that the cause was internal haemorrhage following prolapse of the cloaca. Prolapse is due to straining caused by (i) constipation; (ii) a relaxed condition of the uterine ligaments; (iii) eggs, abnormal in size or shape, or shell-less; (iv) general debility of the system. In this case some of the intestines had escaped through a rent in the cloaca, and had been removed either by other birds or rats, etc., but there was no sign of constipation in the remaining portions. There was, however, a collapsed very thin-shelled egg in the uterus, and this was, in my opinion, the cause of the collapse, and points rather to over stimulation of the generative system than to the need of a tonic such as Parish's food. A few days on a diet of grain and green food only should correct any tendency to imperfect shelling, presuming, of course, that the birds are supplied with a sufficiency of minerals in the food.

A. S.—The post mortem examination of the R.I.R. hen showed that the cause was peritonitis, due to the decomposition of several aborted ova. Her ovary was in a state of hyperactivity, more ova being produced and matured than the oviduct and uterus could take care of, and so she fell a victim to her high fecundity.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

"CERTAIN FACTORS IN RELATION TO PRODUCTION."

This is the title of an interesting paper by Mr. Raymond T. Parkhurst, issued by the Idaho Agricultural Experiment Station.

Space here will not permit us to publish the whole of the paper, but we may safely deal with the conclusions arrived at. These are as follows:

From a study of the records of 41 pullets during 1923 and 1924, 70 pullets during 1924 until March 1st, 1925, the author feels that the following conclusions seem justified:—

> Pullets that mature quicker, as indicated by the small number of days to the first egg, lay more eggs to March 1st and throughout the year than those which mature slowly.
>
> Pullets that take the shortest time before laying weighed less when they started laying than those that took a longer time. Slow maturing pullets laid larger eggs when they started to lay to March 1st and throughout the year. The more a pullet weighs at time it starts laying the heavier the first ten eggs. The small pullet at the time laying starts lays more eggs to March 1st than the large pullet.
>
> The greater the maximum weight of a pullet for the year, the heavier mean egg weight for the year.
>
> No significant correlation exists between the maximum body weight and the 365 day record.
>
> No significant correlation exists between the 365 day record and the mean egg weight for the period.

Although the paper is of interest, one cannot say that there is anything new in the conclusions at which the author has arrived.

Let us take the first conclusion. For years passed we have stated in "Eggs" that early maturity and high fecundity are correlated, and we have at different times drawn various inferences from this fact, such as the effect upon size of bird, size of egg, etc. This covers No. 2 conclusion.

One would certainly expect the pullets which took the shortest time before laying would weigh less when they started laying than those that took a longer time. In the first place, the slower maturing pullet is building up frame, while the early maturing one is too often producing eggs at the expense of frame.

Again, as to the conclusion that slow maturing pullets lay larger eggs when they start to lay, this is easily explained by the fact that the reproductive organs develop with the body, and bodily development to a great extent is checked when production begins. Therefore a pullet laying at five months old will not attain size, and the reproductive organs will not be so fully developed as that one which begins to lay a month later. This remark covers the next conclusion, as to slow maturing pullets laying larger eggs when they start to lay, and we think also the following one.

We quite agree that no significant correlation exists between the maximum body weight and the 365 days record; the correlation is between the date of maturity and the record.

There is one important point, however, which should not be passed over, and that is, that whatever may be the effect upon size of egg of this early maturity or precocity—call it what we will—the size of egg is to a very great extent determined by inheritance. Thus, in the Wyandotte, the small egg is due to the Hamburg blood, and it is only by the most careful selection that we can eliminate this small-egg factor from this source, while its introduction through the male is of such common occurrence that one cannot speak too strongly of the necessity of a thorough knowledge of the male's pedigree, particularly with regard to record for size of his dam and sire's dam.

Complaints so frequently reach us that a sitting of eggs has been purchased at a heavy cost for cockerel breeding. Size is satisfactory, but when the males from these eggs have been mated to large-egg dams their progeny lays a number of small eggs. The whole explanation is to be found in the fact that the sire's dam was a layer of small eggs, and the small egg being dominant to large the trouble has arisen through this.

GOING LIGHT.

I take the following from the "Poultry Tribune" for May. While not entirely endorsing everything that is said, there is so much truth in it that I feel it would benefit all of us if we took what is written to heart:—

> We read a wonderful editorial the other day about "Going Light." Tuberculosis was the unfailing cause, etc., and we wish that the editor who wrote that would take the trouble to cut into the intestine of some of those birds that he labels tubercular, and look for intestinal worms! He might change his mind about tuberculosis being so common in poultry flocks. Why not cease our endless search for "bugs" and get down to the practical side of the business?
>
> Granted that tuberculosis bacteria can be found in their blood, it is in ours too, but that is not saying that we all have this disease, is it? Almost any germ wanted by a physician can be found in the blood stream of a perfectly healthy specimen. If the physical condition of that person becomes low, his resistance poor, that germ then has a chance to kick up a little trouble, but not before.
>
> So it is with our birds. If infested with worms, the bird fights a losing fight. Sooner or later it goes under if worms are allowed to steal most of the food value from its daily ration. Naturally it "goes light." Just as some of our stout folks do after being put on a strenuous diet! The body of man, animal, or fowl will get thin if not supplied with food, and if the worm gets all of the nourishment, how is the body to have any?
>
> While on this tender subject, we might say that the same ideas apply to bacillary diarrhoea. Just as long as the buying

public is fed so much bunk about bacillary diarrhoea, just that long will they continue to disregard the real causes of most so-called outbreaks of this trouble. Feeding, housing, and care are at the foot of most of these cases. Any derangement of the digestive system of these chicks is visibly manifested by a whitish discharge from kidneys and bowels.

OUR FRONT COVER.

The Misses Ransford write to tell us that they have had a most successful hatching and rearing season, in spite of all the difficulties experienced when removing from Pensford to their new farm at Finchampstead, Berks. The terrible weather experienced when the birds were travelling for the time checked production, as one would expect, but fortunately no colds appeared.

Our readers will be interested to hear that the Misses Ransford's cockerels this season have been hatched in straw houses on a beautiful meadow which has never before carried poultry. The demand for stock cockerels has already been enormous, and all the January and February birds are sold, but the March birds are coming on splendidly under the conditions, which, in spite of the one exception—the weather—are ideal.

The Misses Ransford have exported a number of birds to Canada, New South Wales, Italy, and other parts of the world, so that the "Pensford" strain is enhancing the reputation of British stock.

They have definitely proved that size of egg and body size, with constitutional vigour, are not incompatible with high records, and is not this the secret of clever breeding? Selecting always the "exceptional," and by that we mean not merely high records, but exceptional as to type, size of egg, body size and vigour.

A NOVEL IDEA.

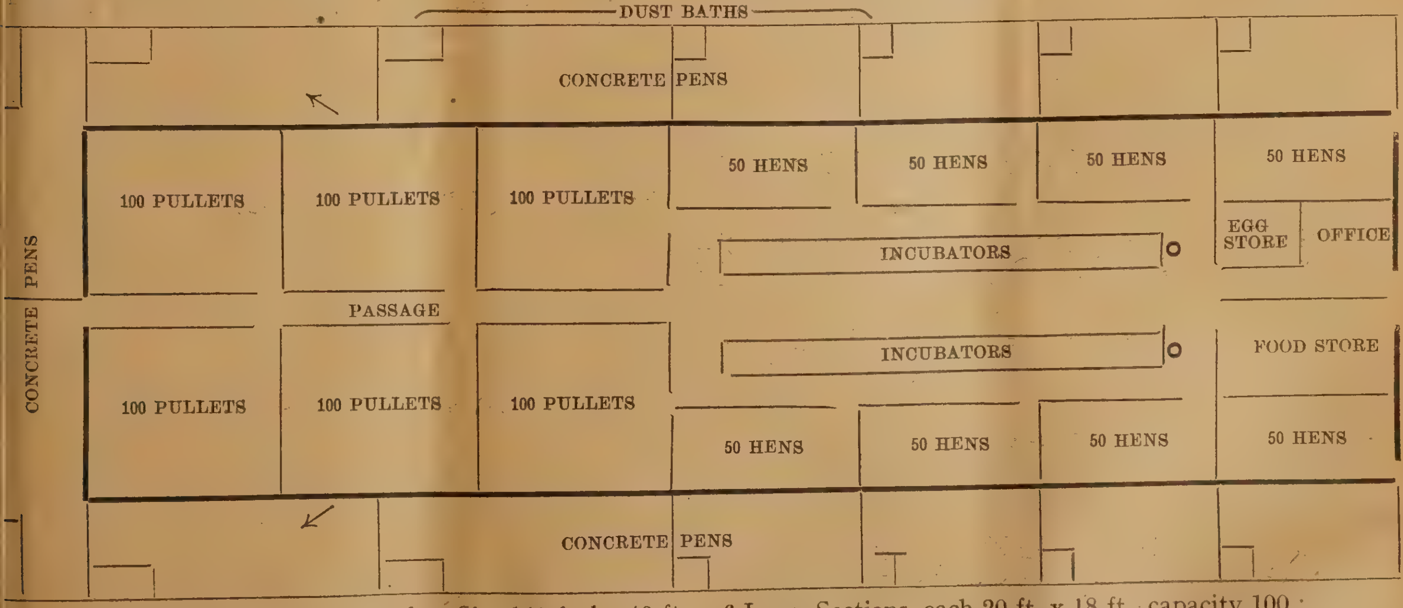
I have received the following letter from Mr. J. A. Malcolm, and the plan below will illustrate what he has to say.

It is difficult to answer such a question. Personally, I can see no reason why it should not be successful, but I could not promise success.

Presumably, the 10 foot concrete runs are intended to provide the hens with a sun bath, and, recognising the vital importance of sunlight, we shall appreciate the idea. However, Mr. Malcolm is anxious to obtain the opinions of as many of our readers as possible, and this is only by way of introduction, so I will not say more on it at present:

"Dear Sir,—I am enclosing a plan of a proposed poultry farm and would be very glad to have your valued opinion of same. Also, if you consider the subject of interest to readers of "EGGS" I would not object to have same published. I am naturally anxious to have as many opinions as possible before entering upon the scheme. The system I propose to adopt is neither intensive or semi-intensive as we know them: it is a combination of both. The birds will have intensive houses or sections, allowing four square feet per bird: they will in fact, be intensively kept in every sense, except that they will have access to small concrete runs, each only 10 feet deep. In each pen will be a dust bath which will be kept sweet by fresh sand whenever required. Alternate pens are not required, as it will be impossible for the pens to become germ-laden as in ordinary grass run. Instead of heavy rain being a creator of dirty, germ infected "drinking holes," so familiar to most semi-intensive farms, they will be welcomed in these concrete pens: they will wash away all the filth collected, or rather created by the hens during the day. In dry weather an occasional brushing and spraying with a good disinfectant will be all that is needed to keep them fresh. Personally, I think this system would combine with the best points of the two other methods, and of course, the advantages of having everything under one roof are obvious. Labour, and the saving of a great deal of building material, coupled with the fact that one could run 1,000 birds on a quarter of an acre makes the scheme ideal. I do not propose to rear chickens, but to purchase pullets at commercial rates from good breeders. I am including incubators as I would propose hatching day old chicks for sale, but my main object would be the production of eggs.

I would be very glad to have your view on the matter, also as many others as possible."



Whole Plant under One Roof. Size 140 ft. by 40 ft. 6 Large Sections, each 20 ft. x 18 ft., capacity 100; 8 Small Sections, each 20 ft. x 10 ft., capacity 50, Total 100 head, 4 sq. ft. per bird. Pens, 10 ft. deep, of concrete, with slope to carry off water. Each pen provided with dust bath of clean sand. All feeding and watering done from inside. Size of land required, ¼ acre.

Food Purchase Scheme.

ALL PRICES ARE SUBJECT TO MARKET FLUCTUATIONS.

May we state that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns, but the undermentioned are special items. Price list will be despatched to any member, if application is made to this office.

Referring to the odd cwts., which are now supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown. This is to cover the extra expenses and handling which the one cwt. business involves. If the total order amounts to 5 cwts. and over, this extra charge will not be made.

Will all members ordering under this scheme kindly note that orders received by second post on Saturdays cannot be dealt with until the following Monday.

All orders accompanied by cheque should be sent to Mr. Tom Newman, Secretary, Rudgwick, Sussex.

SPECIAL OFFERS.

FISH MEAL: F.O.R. GRIMSBY and TYNEMOUTH—5 cwts. and upwards, at 16/9 per cwt.; under 5 cwt. orders at 17/6 per cwt.

UNEXTRACTED DRIED YEAST: F.O.R. GRIMSBY and TYNEMOUTH—At 20/3 per cwt. for 5 cwt. orders; 20/9 for orders under 5 cwts.

FISH MEAL, with the following analysis:—

OIL	4.5 per cent.
ALBUMINOIDS	55.60 per cent.
PHOSPHATES	16.18 per cent.

Prices F.O.R. LONDON

Under 5 cwts.	18/9 per cwt.
5 cwts. orders and upwards ...	17/9 per cwt.

FISH MEAL	17/9	F.O.R. SWANSEA.
,, ,, ...	16/9	F.O.R. MIDDLESBRO'.
MAIZE GRITS	10/9	F.O.R. LONDON.
,, ,, ...	10/9	F.O.R. IPSWICH.
MAIZE GERM MEAL ...	8/6	F.O.R. LONDON.
,, ,, ,, ...	8/6	F.O.R. IPSWICH.
S. G. OATS	12/6	F.O.R. SUSSEX.
MEAT AND BONE MEAL	15/3	Carriage Paid.
MEAT MEAL	15/9	Carriage Paid.
ALFALFA	11/9	F.O.R. LONDON.
,, ...	11/3	F.O.R. LONDON.
BONE FLOUR	9/6	F.O.R. LONDON.

LIMESTONE GRIT: F.O.R. BRADFORD (three grades)—Poultry, Medium. Chicken. In minimum orders of 5 cwts. at 2/6 per cwt.; single cwt. included in order for other goods from Bradford, at 2/9 per cwt.

SUSSEX GROUND OATS at 12/9 per cwt. F.O.R. Birmingham.

FISH MEAL:—

OIL	under 4 per cent.
SALT	under 3 per cent.
ALBUMINOIDS ...	55/60 per cent.
PHOSPHATES ...	15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—

ALBUMINOIDS ...	35/40 per cent.
FATS	10/15 per cent.
PHOSPHATES ...	25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—

ALBUMINOIDS ...	57/62 per cent.
FATS	10/15 per cent. at 15/6 per cwt.

F.O.R. MIDDLESBROUGH.

	MASHES					CHICK FEED		MIXED	S.G.	FISH	MEAT	MEAT & BONE
	Layers	Growers	Breeders	Chick	Fattening	No. 1	No. 2	CORN	OATS	MEAL	MEAL	MEAL
Liverpool	11/-	11/3	12/3	12/3	12/3	17/-	14/9	12/9	14/9	20/3	18/9	14/9
London	11/9	11/9	12/9	13/-	12/9	17/9	16/3	14/6	13/6	17/6	...	13/6
London	11/-	11/-	12/-	12/3	11/9	17/-	15/-	...	...	...	...	...
Leith	10/3	10/3	10/9	11/3	11/3	16/3	15/9	11/9	13/-	18/9	...	13/3
Leicester	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	14/6	21/-	...	17/-
King's Lynn	11/3	11/3	11/6	12/6	11/9	17/3	15/6	...	15/-	19/3	...	13/9
Belfast	12/9	12/3	13/-	14/-	...	18/-	16/9	...	13/3	20/-	15/-	12/9
Bristol	11/3	11/3	12/-	12/9	12/-	17/9	15/9	14/-	13/3	17/9	..	12/9
Southampton	11/6	11/6	12/6	12/6	11/9	17/3	15/3	11/3	14/3	21/6	..	14/3
Plymouth	12/-	14/-	12/6	14/3	11/9	19/-	16/9	...	15/9	20/9	...	16/9
Aberdeen	12/-	12/6	13/6	13/6	13/-	15/6	14/3	...	12/6	17/6	..	12/6
Harrogate	11/6	11/6	12/3	12/9	12/9	17/6	15/3	...	13/6	20/-	...	13/6
Glasgow	12/-	12/-	12/-	13/-	12/-	17/-	15/-	11/3	13/3	20/-	17/3	15/3
Staffs	11/-	11/-	11/9	11/9	11/3	17/-	15/-	...	13/6	19/3	...	13/3
Herts	11/-	10/3	11/3	11/-	11/6	16/6	15/6	...	...	17/9	...	14/9
Bradford	11/6	11/6	12/3	12/9	12/3	17/6	15/9	...	...	17/6	...	14/-
Birmingham and Wolverhampton	10/9	10/9	11/6	11/6	11/-	16/9	14/6	11/9	12/6	18/9	...	13/9
Greenock	11/-	11/6	12/-	12/9	12/9	17/9	15/9	...	14/9	20/3	15/6	15/-
Tewkesbury	11/3	11/3	12/-	12/9	12/-	18/-	15/-	11/9	13/-	20/3	...	15/-
Bolton	11/9	11/9	12/9	12/9	12/-	17/-	15/3	...	13/6	21/6	...	14/-
Middlesbrough	11/3	11/-	11/3	12/3	12/-	17/6	16/3	...	13/6	17/-	...	12/9
Mid Sussex	11/3	11/-	11/6	12/3	11/6	18/3	16/3	...	12/6	...	...	...
Sussex (East)	11/6	11/9	12/6	12/-	12/3	17/6	15/6	...	...	...	...	...
Sussex	11/6	11/6	12/6	12/6	12/6	18/-	14/9	13/-	12/9	19/6	...	18/-
Essex	11/-	11/-	11/9	14/3	...	17/9	15/9	...	13/6	...	...	...
Birkenhead	10/9	11/6	11/9	12/6	12/-	17/3	15/6	...	...	19/9	..	13/9
Isle of Wight	11/9	12/-	13/6	15/-	...	18/6	17/6	12/6	16/-	21/-	...	15/-

It would be of very great assistance if members when ordering would always **STATE STATION** they wish goods despatched to, also their **NEAREST DEPOT.**

Correspondence.

POULTRY FARMERS' INCOME TAX.

To the Editor of "Eggs."

Dear Sir,—The National Poultry Council through its solicitors is seeking to obtain a basis which the Inland Revenue would adopt for repayment of Income Tax paid by poultry farmers on assessment under Schedule "D."

In a great number of cases that have come under the notice of the National Poultry Council it has been found that the Inspector of Taxes has insisted on assessing under Schedule "D"—this is entirely opposed to the decision of the High Court.

An announcement on this subject will, it is hoped, be made shortly, so that poultry farmers will know whether they are able to obtain repayment of tax which the National Poultry Council contend has been wrongfully paid.

Notices for assessment are now being issued to poultry farmers, and great care should be taken in filling up these forms. The paragraph relating to profits of trade should be filled in with the words, "Not assessable under this Schedule for poultry farming."

If poultry farmers should be in the least doubt as to what to do, they are urged to write to the National Poultry Council.

Yours truly,
A. E. HAMLIN & CO.

BROKEN YOLKS.

To the Editor of "Eggs."

Dear Sir,—I should like to say a few words to Mr. Lee regarding broken yolks being caused by aeroplanes, in his letter in "Eggs" of the 5th inst. I do not think they can have anything to do with the broken yolks unless it is noticeable that the hens are really scared when aeroplanes are flying over. There is an aerodrome 1½ miles from my farm, and aeroplanes are continually flying over, sometimes in groups of five and nine, and often flying fairly low. I have had exceptionally good hatches this season, over 90 per cent. from my own eggs. I had a 45 Gloucester set with 48 eggs, which hatched last week. I took out one clear, and out of 47 left I had 46 good healthy chicks.

I can sympathise with "Sufferer." I, too, bought in 50 eggs which were advertised in "Eggs" as being from hens laying 2¼ oz. eggs. I was much disappointed when they arrived, as the majority of them were under 2 ozs., and a good many were badly ridged. I wrote a complaint, but the reply was so unbusinesslike that I put it in the fire. It is a pity something cannot be done to prevent people of that kind from advertising, especially in "Eggs," as it is very much against other advertisers, who intend to give their customers "a straight deal."

Yours faithfully,
WALTER F. CROSBY.

(Our correspondent should understand that nothing can be done to prevent people of "that kind" from advertising in "Eggs" if we do not receive complaints in reference to the transactions. Every complaint we receive is investigated, and as far as possible we endeavour to arrange matters between buyer and seller, and many advertisements are stopped or refused. The Council of the S.P.B.A. have lost a considerable sum of money by their refusal of advertisements from undesirable persons, and at a critical time in the history of "Eggs" it required a good deal of courage to refuse large sums which were very badly needed. That policy is still being pursued, but our correspondent will understand that it is impossible for us to deal with what we may describe as "indefinite grumbling." If we are to deal with it at all, it must be a definite complaint, and we must have the necessary evidence.—Editor.)

SHELL-LESS EGGS.

Dear Sir,—Just a short note of an experience which may possibly be useful to those who keep fowls intensively. I have over many years found thin-shelled and soft-shelled eggs one of the bugbears of the intensivist, as it always leads to egg eating.

A short time ago I had one hen that always dropped a soft egg on the dropping board, despite the fact that shell and limestone grit were always before them in a box. By way of experiment I tried scattering some of the shell amongst the scratching material, and within a week the soft eggs ceased, and the shells of all the eggs were **much** stronger. I can only attribute the improvement stated to the shell being scattered in the litter, as no other changes were made.

I wonder if any other reader has had a similar experience?

I am, Sir, yours sincerely,
GEORGE TUCKER.

MEMBERSHIP OF THE S.P.B.A.

So many of our readers are under the impression that they must necessarily be scientists, pedigree breeders, or farmers on a large scale to render themselves eligible for membership of the S.P.B.A. This idea is quite incorrect. The S.P.B.A. is out to assist all grades of poultry-keepers, from the proprietor of the 10,000-hen farm to the intensivist with his dozen or so birds; all are entitled to equal benefits. The Five Shilling subscription brings with it many advantages, namely, Free Advice by Post, a Copy of the Annual Register, the Benefits of the Discount System, and many other advantages too numerous to mention here. You should write for full particulars to the Secretary, TOM NEWMAN, The Beeches, Rudgwick, Horsham, Sussex.

The financial year began on 1st September.

Some Fruit-Growing Notes
to help Poultry-Keepers.

By F. W. WHEELER, F.R.H.S.

VINES—Continued, No. 3.

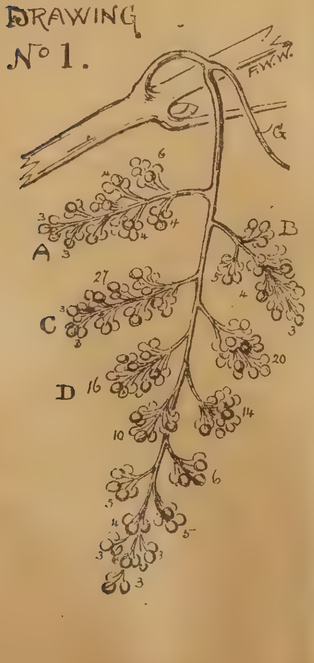
THINNING OUT THE BERRIES.—At the time of writing these notes one cannot say whether the present general strike, including printers, will prevent them reaching readers in time to aid in the early thinning operations, but I have little doubt that they will reach you in time for a second examination of your bunches, and further reduction of berries.

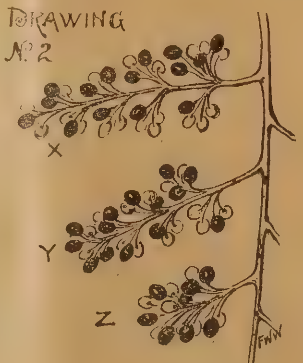
Thinning is an important part of our work in the vinery, and requires care in order to obtain not only a bunch of good size and weight, but likewise one of good shape and appearance. It is a mistaken idea that reduction of berries will reduce ultimate weight of the branch (unless carried to a ridiculous extreme). On the contrary with correct thinning, the bunches will be heavier than those not thinned.

With beginners it is usually most difficult to get them to remove sufficient berries. I remember my early days at this operation, and thinking as I reviewed my work—Well, I guess I have taken out plenty this time; but not so, more had to come out later on.

In order to help beginners at this work I propose again using illustrations, as it seems the best way to make oneself clear, and I have also sketched from an actual bunch just as it hangs in my greenhouse.

Drawing No. 1 is drawn full size (at the stage just before the flowers open). Some bunches go even larger, but it is a good average specimen. The cluster looks beautifully open now, but unless one-third of the berries that will come off are removed it would be very crowded when full grown.





Besides one-third being removed there will be several flowers that will not mature, and these will easily be recognised as they do not swell up but remain very small. Remove those that do not fall off while you are thinning. In passing let me here say that you must have the correct pointed and short-bladed scissors especially sold for thinning. The time saved will soon repay for cost of outlay.

Just a few explanatory notes about Drawing No. 1. The figures show how the small clusters gradually get less and less in numbers, until near the point they are chiefly small groups of three berries in each, and two out of each three can usually be removed.

The top clusters A and B (and perhaps C) will have a tendency to drop, and it is a very good practice to support or tie these up with raffia so as to keep them growing out at right angles to the main stem. It will allow more berries to be left on these upper clusters if so supported.

G shows stem of a secondary bunch, and can often be left, and would be treated similarly to the other part, but remove it if it cannot be supported and kept clear of the main bunch.

Drawing No. 2, with sketches X, Y, Z. These are given to show how the clusters A, C, D of No. 1 are likely to develop, and how they should be thinned.

I have shown, in solid black, berries to be left. It will be noticed that I have marked hardly any berries on the under side of a cluster to be left, for I have repeatedly found that the bunches become too crowded if these under berries are not almost entirely cut away, especially when bunches are dwarfed in growth, for beginners will often have bunches much less open than I have indicated in Sketch No. 1. Let me also particularly warn you to keep the centre, or heart, of the bunches quite free from berries, as when not free and open for air mildew may set in, and the whole bunch is soon spoilt. It is to remove these that the second thinning operation is so necessary.

A good guide as to correct thinning is that when the berries are a little larger than peas no berries should touch one another. If they do, then remove more of them until all are clear of each other. Avoid touching the berries with your fingers as much as possible. The use of a blunty-pointed stick, rather smaller than a lead pencil, will be found a great help to steady the bunch while using the scissors.

I must not trespass on more space to-day, but just repeat an earlier remark—namely, that I am dealing with cultivation of the Black Hamburg grape, as being the one grown by most amateurs, for there are varying small details for other varieties.

SPECIAL MARKET ADVICE TABLE.

In View of the Industrial Upheaval.

By A. V. CLARKSON.

Producers must have been greatly inconvenienced in every sense of the word by this terrible catastrophe. Judging from the London point of view, they have been probably hit as hard as anybody. In London, the poultry trade seemed to have crashed rather badly, because of course, the biggest consumers found themselves without trade. The only thing that seems to have stood the test is Eggs, and it is questionable whether the extra expense incurred has made it profitable to market these, except from the point of view that one cannot hold eggs indefinitely. The outcome of the situation is that, of course, the produce of the poultry farms has got to be marketed sooner or later, and we have lost a fortnight during which a lot of stuff could have, and should have, been cleared to the advantage of the producer. We are now faced with the following position regarding individual productions of the farm, and senders must use their discretion in conjunction with the advice of their salesmen.

POUSSIN.—This trade is now finished, and small Cockerels will have to be sold alive, or alternately run them to Chicken size.

SMALL CHICKEN.—Chicken scaling up to 2 lbs., although not in demand at present, will be wanted when conditions become more normal, and senders should not send these unless the salesman specifically states that he wants them.

LARGE CHICKEN.—Chicken scaling 2½ lbs. or over will be much in demand, and it will be to the advantage of the sender to have such birds penned up and fattened before sending. The reason for this is that such a bird, which has been properly cooped and fed, has a much better appearance than an ordinary bird which has been running about, and in consequence must of necessity do better than the runner bird.

OLD HENS.—Old Hens should be marketed directly they become unprofitable because there is always a steady demand for Live Hens, but it must be appreciated that as supplies become more plentiful (which is usual about this time of the year) prices will have a tendency to take a slight fall.

OLD DUCKS.—Old Ducks should be couped up for a week or two before sending. When packing them in the crate, a little hay or straw at the bottom goes a long way towards keeping these birds clean on arrival.

OLD COCKS.—There is always a steady demand for these birds, but of course, as the summer draws on, they have a tendency to take a slight drop in realisation price.

NEW LAID EGGS.—These will continue in steady demand. The writer would very much like to impress upon each individual sender the absolute necessity of grading his Eggs. It would appear that slowly but surely the buyers are looking towards the English New Laid Eggs, but as is generally known, the quality of English marketing is not yet up to that of the foreigners. It is absolutely up to every individual producer to change this state of affairs, and so sure as a man grades and markets his Eggs properly, just so sure will he make a name for himself.

THE YORKSHIRE FEDERATION OF POULTRY SOCIETIES.

The Agenda for the Council meeting, to be held at the Y.M.C.A. Hall, Albion Place, Leeds, on Saturday, June 5th, at 3 p.m., has been received.

An interesting debate is to take place at 7 p.m., when the discussion will be opened by Mr. W. Hirst, Chairman of the Hunslet Society, on the question, "Are Utility Poultry Shows a benefit to all branches of the Poultry Industry?" Will the extremists meet or will those who are wholly enthusiastic about them talk only of their merits, and those who think otherwise condemn them unmercifully? I should like to listen to that debate.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, May 26th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.
Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for every-one concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

APPLICANTS FOR MEMBERSHIP, S.P.B.A.

Harrison, L. C., Linton, Nr. Ross-on-Wye, Herefordshire.
Tomlinson, J., Leasingham Hall, Sleaford.
Conroy, J., 37, Barden Lane, Burnley.
Rees, J., Oakfield House, Pleasant Road, Penllergaer, Swansea.
Phillips, A. H., Pencorse, Summercourt, Cornwall.
Shields, Mrs. James, Stoneyhill, Musselburgh.
Judson, Miss Kate E., Hilton Villa, Norwood Lane, Meopham. Kent.
Smith, T. S., Dromore, Rednal, Worcestershire.
Cowper, Miss B., The Cottage, Barnsley Park, Cirencester, Glos.
Banting, W. S., White Hill P.F., Flamstead, Nr. Dunstable.
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Keen, G. Shadwell, May Cottage, Catsfield, Battle, Sussex.
Richmond, R., Hillside, Romsey, Hants.
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Moras, A., The Hall, Aslockton, Notts.
Evans, Mrs. A. S., Cholstrey Court, Nr. Leominster.
Matterface, R. W., 121, South Street, Bridport.
Brown, A., 231, Sheffield Lane, High Greaves, Ecclesfield, Sheffield.
Waring, H., Rycroft P.F., Hest Bank, Nr. Lancaster.
Hankinson, J., Porlock, Taunton, Somerset.

Classified Advertisements.

(PREPAID RATES).

1d. per word—minimum charge 1s. 0d.; 13 insertions at price of 12. Bold headlines inserted at an extra charge per insertion according to size as below.—

DAY-OLD CHICKS per line, extra 9d.
DAY-OLD CHICKS „ „ 1s.
DAY-OLD CHICKS „ „ 1/6

The number of letters, punctuations and spaces between words should be totalled, when the following table will be of assistance:—

9d. size allows for Thirty-one to one line.
1/- size allows for Twenty-seven to one line.
1/6 size allows for Twenty-one to one line.

When the remittance does not cover the size selected, a smaller corresponding size type will be used.

Insertion constitutes acknowledgement of remittance in the case of pre-paid advertisements. For a series of 13 insertions or more, a receipt is forwarded.

N.B.—Advertisements, unless accompanied by correct amount, will not be inserted.

Advertisements must be distinctly marked with the Heading under which they are to appear.

Advertisements must be written on a separate sheet of paper, and one side of the paper only.

Name and Address to be counted. In the case of a Box Number being used, the words, 'Box," "Eggs," 94, Farncombe Street, London, S.E.16, to be counted as eight words, i.e., making a total extra charge of 1s. 8d. (1s. for Box; 8d. for address), per insertion.

Advertisements must reach this office

FIRST POST FRIDAYS

for insertion in the following Wednesday's issue. Those received after this time will be inserted in the next issue.

PLEASE WRITE CLEARLY, and TO AVOID MISPRINTING OF STRAINS, NAMES AND ADDRESSES, THESE SHOULD BE WRITTEN IN PRINTED CHARACTERS.

Displayed Advertisements.

Ordinary Page, £8 15s. 6d.; Half Page, £4 7s. 9d.; Quarter-Page, £2 4s. 0d.; One Column, £2 18s. 6d.; Half Column, £1 9s. 3d.; Quarter Column, 14s. 9d.; One Inch, 6s. 6d.; Special Inside Pages, 25 per cent. on above rates; Cover and other Special Positions by arrangement. Discounts for Series. Full Scale of Advertising Rates on application.

Advertisements, addressed to Mr. S. H BURLES, "EGGS," 94, FARNCOMBE STREET, LONDON, S.E.16, MUST REACH US BY FIRST POST FRIDAY MORNINGS, for insertion in following issue. Those received later will be inserted in the next issue.

A DEPOSIT SYSTEM has been adopted for advertisements, and Advertisers are asked to make full use of same. When remitting direct to the Editor on deposit, the full amount of purchase money should be sent, and six penny stamps extra to cover cost of acknowledgement of same. Cheques should be made payable to the Editor and sent direct to The Beeches, Rudgwick, Sussex.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. — R.I.R. (Boucher), Runner and Khaki-Campbells. Eggs and Stock Birds. List free. Satisfaction insisted on.

Eggs for hatching. W. Wyandottes, Light Sussex, R.I. Reds; 6s. sitting; £2 per 100. — F. B. Jessett, Drayton P.F., Havant Road, Cosham, Hants.

White Leghorn Eggs; 5s., doz.; 25s., 100. Trap-nested (records over 200); 7s. 6d. doz.; 35s., 100. Reduction in quantities. Heavy breed Three Months Pullets; 7s. each.—Wood and Bacon, Arle Poultry Farm, Cheltenham.

Free range stock. Fertile Sittings:—R.I.R., 4s. 6d.; Australorps x R.I.R. 5s. 6d.; Indian Game, 7s. 6d. per 15, c.p., u.n.r. —Wortley, The Wilderness, Fransham, Norfolk.

Alex. Wilson, M.S.P.B.A., Bankhead Poultry Farm, Bucksburn, Aberdeen, offers Pure-bred Light Sussex, White Leghorn. Selected Eggs from second season hens, 6s. 6d per sitting, carriage paid.

EGGS AND CHICKS.

FOR SALE.

Eggs for Hatching and Day-Old Chicks by return, or orders booked for later delivery, from my well-known flocks; all free range; 600 acre farm; of Cam's White Wyandottes, Rothschild's Light Sussex, Schimnel's Barnevelders, Measures' Rhode Island Reds, Hunter's Black Leghorns, Barron's White Leghorns. Eggs, 6s. doz.; £2, 100. **Chicks double.—Mrs. Porter, Dishley** Grange, near Loughborough.

100 CHICKS, 55s.

White Leghorns, Tom Barron. Special quotations for quantities.—Capt. H. Oscar Perkins, Tendring, Clacton.

PULLET CHICKS, 21s. Dozen.

Cockerels, 5s.; Eggs, 4s. Brown Leghorn x Sussex. — Rhymes. S.P.B.A., Northway, Tewkesbury.

UTILITY WHITE LEGHORNS.

Eggs, 5s. 6d. dozen; infertiles replaced. Chicks, 11s. per doz. Price List free. — Sanders Bros., Homedene Poultry Farm, Hayling Island.

REDUCED PRICES.

Eggs and Chickens from our famous Trap-nested, hardy strains of heavy layers. R.I. Reds, Wyandottes, Sussex, Orpingtons, Rocks, Leghorns, Anconas.

EGGS.

5s. 12; 10s., 26; 17s. 6d., 50; 30s., 100.

Unfertiles replaced.

DAY-OLD CHICKS:

10s., 12; 20s., 25; 37s. 6d., 50; 70s., 100. Live delivery guaranteed. All Eggs and Chickens guaranteed from our own flock of nearly 5,000 selected birds on exposed grass runs. You cannot obtain better value at any price. We have hundreds of regular customers. Will you become one Send for free Illustrated Catalogue. Special reductions for large orders.

EASTMAN BROS.,

SUFFOLK POULTRY FARM, HADLEIGH.

DR. HARBORD'S

hardy—Pedigree—noted for stamina
W. LEGHORN'S · R.I.R. · LIGHT SUSSEX.

Eggs from 5s. dozen; 35s. 100; Chicks booked from 12s. 6d. dozen. 90s. 100. Only rigidly selected tested hens and choice males of direct test winning ancestry used. —Detling Hill, Maidstone.

EGGS AND CHICKS.

FOR SALE.

Light Sussex and White Leghorn Eg 6s. per dozen; 45s. per 100. Chicks doub List free.—4, Great Barrow, Chester.

White Leghorn Sittings. Special redu tion, April-May, 4s. dozen. Quantiti quoted.—Lakeview Poultry Farm, Benin brough, York.

"DAILY MAIL" CROSS-BRED TEST, 1925

W. Leghorn x W. Wyandotte.
Three winter months.

SECOND PLACE, PULLET SECTION.

Eggs from parent pen of above, 10s. 6 per dozen. No chicks for one mont Also sittings and chicks R.I. Reds (San hills-Golden, Boucher), and W. Wyandott (Sandhills' large eggs).—J. A. Brawn, San hills Poultry Farm, Shire, Oak Hill, ne Walsall, Staffs.

DERRINGSTONE POULTRY FARM
RHODE ISLAND REDS, LIGHT SUSSE
WHITE, BROWN, & BLACK LEGHORN
SITTINGS FROM 5/= PER DOZEN.
THREE-MONTH-OLD PULLETS 7/6.
BREEDING PENS FROM £4 4s.

Orders booked for Ready-to-Lay Pullets. P. F. Gleed, Derringstone Poultry Farı Barham, near Canterbury.

100 CHICKS 46/-.

Boxes free, carriage paid up to Londo aerial travel two hours. Pure-bred Whi Leghorn, White Wyandotte, Black Bress Salmon Faverolles. Catalogue free. Etablissements, "Chanteclair," Chavil (S et O), near Paris (France).

CUSTOM HATCHING.

26s. per 150. £8 per 1,000. Chicks return carriage paid. — "Little Hadlow" Poult Farm, Hadlow Down, Sussex.

SOUTH-EASTERN AGRICULTURAL COLLEGE, (POULTRY DEPT.), WYE, KENT.

FROM BLOOD-TESTED STOCK ONL

of the following breeds:—White Wya dottes, Light Sussex, Rhode Island Re (S.c.), and White Leghorns. Chicks an Sittings can be supplied at the followin rates (unfertile eggs not replaced):—Egg 7s. 6d. per doz.; Chicks, 15s. per do Eggs, 60s. per 100; Chicks, 120s. per 100.

PULLETS.

FOR SALE.

Three-month-old White Leghorn Pullets no duds; 72s. per dozen. — V. Wilkin Bondman Hayes, Ratby, Leicestershire.

ST. OSYTH'S PRIORY POULTRY FARM Essex. W. Leghorn and L. Sussex Pullets three months old pullets; ready now an onwards; 5s. to 10s. each, according t age and record. Also Stock Cockerels.

RHODE ISLANDS (Boucher).
WHITE WYANDOTTES (T. Barron).
WHITE LEGHORNS (Allen Bros.).

Owing to absence abroad in the comin Autumn and Winter, I am obliged to dis pose of the whole of my healthy trap nested stock. All in full lay. 1924 Hen from 7s. 6d.; 1925 Pullets, Cocks, Cockerels Orders booked for three months old Pul lets.—Full particulars from Rev. R Pulleine, Ripley Rectory, Harrogate.

3-MONTH-OLD PULLETS.

Light Sussex and Rhode Island Red.—Lieut.-Comdr. Kingdon, Springfield, Stockbridge.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association
WEDNESDAY, JUNE 2nd, 1926.

Editorial.

DISEASE AND ITS PUZZLES—Continued.

As another example. A correspondent writes, in seven days he lost six March-hatched chicks. Post-mortem report on one was that the big intestine was in a necrotic state, but the liver and other organs healthy. Another chick was sent for post-mortem examination. The reply from this course was Davainea proglottina, which, being interpreted into vulgar language, indicates one of the many species of the tapeworm.

A third was diagnosed as Coccidiosis, and in a fourth was found a fibrously-matted gizzard.

The breeder was terribly alarmed at the fear of an outbreak of coccidiosis and the directions given, but as, at the time my correspondent wrote us, the chicks were six weeks old, there seemed little danger of an outbreak of coccidiosis, and it was, to say the least of it, wonderful that out of 250 chicks only six should have been lost, and one of these diagnosed as coccidiosis.

We could give many similar examples, but these will suffice.

To return to our correspondent's letter, paragraph 1 and 2. We have 81 chicks, all reared with the exception of four, which die or are killed, but in no case from disease.

We then have a batch of 121, bred as the previous batch. All goes well until the sixth or seventh day, and then 40 are found dead—the diagnosis of a few which were killed and sent for post-mortem examination is—Coccidiosis.

One more batch—80 chicks, placed in a new house and not allowed outside at all; go wrong on the fifth day, and this, too, is diagnosed as coccidiosis.

Here is another case. A member writes :—

> "Referring to the chicks which were reported to be dying from coccidiosis. These were kept in the brooder for 48 hours. On the second day after this there were three dead; third, seven, and a good many looking very ill. I immediately isolated the whole batch, and I killed about 30 more chicks. On the fourth and fifth days I picked up 16 dead, but the bulk of the chicks showed signs of illness. I killed several more, and quite half the batch was gone. The next day I decided to wipe the lot out, and did so before the post-mortem report came, as I could see that something serious was happening. It has been very puzzling to me, as these chicks were put into a spotlessly clean and disinfected place, and had never been out on the grass. I could not help but feel that it was some hereditary disease, else if I had carried germs, etc., on my clothing or they were in the food, surely the chickens five days older in the next section would have caught it. These chicks I have still 75 out of 76, and were from my own breeding pens. I have about 500 young chicks now ten days to 21 days which have yet shown no signs of the trouble."

We have, we are told, hens which, having recovered from the disease, become carriers and disseminate it through the excrement, so that the soil becomes contaminated; the same hens may lay infected eggs, and there is the possibility of infection from wild birds. But every hen in a breeding pen is not a carrier, and (we are asking for information) is it possible that a breeding pen can, in the first place, lay eggs, all of which give healthy chicks, and then follow this with eggs infected with the disease, and of such a virulent type that 40 chicks are found dead in one night from it?

What we are trying to arrive at is, assuming one hen in a breeding pen of ten laid infected eggs, and chicks hatched from these eggs are infected when hatched, could other chicks hatched from the same pen acquire the disease—coccidiosis—and so develop it that there will be a heavy mortality, in some cases in five days, and in others six or seven?

To take one other disease—Aspergillosis. A large general farmer writes to say he is losing large numbers of chicks, the disease has been diagnosed as aspergillosis. Having plenty of clean straw and chaff he is perfectly sure that the chicks cannot have acquired the trouble from this. He is satisfied the food cannot be at fault, samples are sent and a very careful examination fails not only to reveal anything wrong with them, but confirms his opinions that they are of first-class quality.

The following is a letter received from a Lincolnshire member :—

> "Can you kindly give me some information about **Aspergillosis** in chicks, with advice on treatment, if any?

My trouble is as follows:—During February and March I supplied 300 Buff Rock chicks to a customer in three lots of 100 each. He now reports that the first lot are the best he ever had. Lot 2 reared rather badly, and lot 3 have all died but about 20. Lots 1 and 2 brooder reared. Lot 3 under hens in two or three different premises. He sent some dead chicks for post-mortem examination, and it was reported that the chicks were dying from aspergillosis, stating that this can be attributed to parent stock, musty food, or packing materials. Packing used was very good hay from land not stocked with poultry, and fresh threshed oat and wheat chaff, with flannel covering.

The parent stock are apparently all right, as proved by the fact that out of about 2,000 hatched this season we have had no other complaint, and our own are rearing splendidly. In fact, this is the most successful season we have had for some years, apart from this case."

Pearl and Curtis say:—

"It is possible that this disease is sometimes carried in the egg. The spores and mycellium are often found in the digestive tract of hens, and it is not unlikely they may work up the oviduct from the cloaca and infect an egg before it gets its shell.

Treatment of diseased chicks is useless. When they are infected the spores develop on the membranes, and new spores are formed which spread the infection throughout the respiratory system, and also to the other organs."

If we assume that infected eggs were laid, would the disease develop to such an extent that there would be a very high mortality within a few days of hatching? We cannot suppose that many hens were laying infected eggs.

We again take the following case:—A correspondent from Kildare writes that she imported some day-old chicks from England which proved most unsatisfactory. Two were dead on arrival, more died on the first night and continued to die off, averaging two or three a day until out of two dozen only eight were left. The writer stated that she used to leave them apparently quite well and reurn to find one or two dead, and the deaths took place in the first few days. They began dying in the first twelve hours—in fact, the first night—and the disease was diagnosed as aspergillosis. **She reared a great many chickens under exactly the same conditions—same lot of food and litter, and all did splendidly.**

We must assume in this case that the eggs were infected from which these chicks were hatched, but here we have two dozen chicks. We cannot think that every egg is infected in this manner from every hen, and it does not seem possible that there could be infection from chick to chick with this disease in such a short time as would cause such a high mortality in such a short period as this. We are putting the point as a practical breeder, and it is one we want particularly to emphasise in regard to coccidiosis. It is of particular interest in regard to this case. Was the diagnosis aspergillosis correct? If it was, was the loss of all these chicks due to the disease? We leave the matter at that. We have put these cases forward, not, as we have said, in any critical spirit, but as a matter of interest and importance, and as we believe they have a direct bearing on the question of research into disease.

(Continued at Foot of Next Column.)

Cod Liver Oil and its Influence on Hatching.

At the Experimental Farm this year with the intensively-kept birds the hatching results were by no means satisfactory, although curiously enough we had not the slightest difficulty in rearing the chicks, and the mortality was very low.

Finally, it was decided to run one pen semi-intensively. In the second pen the whole of the front of the house was removed so that the birds got free and unadulterated sunshine, and in the third pen cod liver oil was added to the mash.

Every egg from these three pens has been dated, and we wish to see whether any improvement is effected by this means. Later on we may have something interesting to report.

It is curious that when the birds were kept intensively the hatching proved progressively worse.

The use of cod liver oil was first recommended in these columns some five or six years ago, and now the following article, taken from "Poultry Science,' to the Editor of which journal, and the authors of the above article we desire to make the fullest acknowledgment, will be of very great interest:—

STUDIES OF THE VITAMIN POTENCY OF COD LIVER OILS.

XIX.—INFLUENCE OF COD LIVER OIL ON REPRODUCTION.

(Arthur D. Holmes, with the co-operation of H. E. Brown, J. Walker Smith, G. B. Treadwell, and W. M. E. Whitelock.)

"It seems to be very generally agreed that cod liver oil is the richest natural source of the antiophthalmic (vitamin A) and the antirachitic (vitamin D) vitamins. Whether or not cod liver oil contains a third fat soluble vitamin, vitamin E, the fertility vitamin, does not appear to be definitely settled.

Evans and Bishop report that cod liver oil tested by them for the presence of the fertility vitamin ppeared to be entirely lacking in this factor, even lthough it contained detectable amounts of vitain A. Sure in his investigations of dietary reuirements for reproduction included 2 per cent. f cod liver oil in his control ration. He reports hat "no fertility was obtained on control rations, lthough normal growth was secured with all nimals."

Inasmuch as these investigators supplied no nformation concerning whether the oils used were rude, pressed, or renovated oils, concerning the ethod by which the oils under consideration were eparated from the liver tissue, or concerning their haracteristics, we are unable to judge as to hether or not the oils that they used were typical average cod liver oil. This uncertainty raises he question as to whether the results reported pply to cod liver oil in general or merely to the ils studied.

During the course of our examination of a numer of fish liver oils for their vitamin A content, e made some observations regarding the posibility of fish liver oils having some influence on eproduction in laboratory animals that had been onfined to synthetic, vitamin A, inadequate diet. ince the data noted in this report were limited, seemed desirable to conduct experiments on a ore comprehensive scale. It was for this purpose hat the present investigation was inaugurated.

NATURE OF COD LIVER OIL.

The cod liver oil used in this study was a crude l, prepared by steam cooking fresh livers. Its olour was darker than that of medicinal cod liver ils, and when analysed it was found to have the ollowing characteristics :—

CHEMICAL AND PHYSICAL CHARACTERISTICS OF CRUDE COD LIVER OIL.

Spec. Grav., at 25 deg. C., 0.9232 ; Ref. Ind., t 20 deg. C., 1.4765 ; Sapon (Value), 190.3 ; odine (Number), 137.2 ; F.F.A. per cent., 1.519.

To provide some information concerning the itamin A content of the oil under investigation, it as tested by means of the biological test disussed in detail in previous papers. The results of his test showed that less than three milligrams aily of this oil provided sufficient vitamin A to nable albino rats to recover from vitamin A alnutrition.

EXPERIMENTAL PROCEDURE.

In order that we could more accurately observe he percentage of viability of young obtainable rom ova that were being influenced by cod liver il or some of its constituents, we decided to use he domestic fowl as the subject of our investiation, since the ovum can be kept under observaion outside the body.

For this investigation we selected individuals rom three of the better-known breeds of fowl— amely, Rhode Island Red, White Leghorn, and Barred Plymouth Rock. In each instance control birds as nearly as possible identical with the experimental birds were maintained under the same condition as existed for the experimental birds.

The cod liver oil was fed at the rate of one pint per 100 birds per week. This amount was chosen empirically, and in this study we collected no data as to whether the same or more beneficial results would have been obtained had the amount of oil been less or greater than that chosen.

In order to minimise possible vitamin deterioration by atmospheric oxidation, limited quantities of oil and grain were mixed at frequent intervals. For convenience in feeding, the cod liver oil was included either in the dry mash or scratch grain.

EXPERIMENTS.

In view of the voluminous nature of the data that we recorded concerning the age of the birds, conditions surrounding their growth, constituents of their rations, the number of eggs found infertile at different stages of incubation, the number of dead chicks in the eggs, the number of eggs broken, and the number of live chicks unable to get out of the shell, we are reporting at this time only the data essential for interpreting the results obtained in the fifty incubations that were included in this study.

RHODE ISLAND REDS.

Two flocks of Reds were used in our tests, one a small flock of nineteen birds, and a second of four hundred birds. The results that we obtained are tabulated below :—

HATCHABILITY EXPERIMENTS WITH RHODE ISLAND REDS.

Experiment No. 1—No. of Birds: 9 Experimental, 10 Control. After Feeding Oil.

Incubation Date.	Number of eggs set.		Hatchability of all eggs set.	
	Expt.	Control.	Expt.	Control.
February 18th	68	60	65	47
March 2nd	54	28	74	43
March 20th	14	47	64	43
Total	136	135	Aver. 68	44

Experiment No. 2—No. of Birds: 200 Experimental, 200 Control. After Feeding Oil.

March 2nd	360	360	55.0	56.1
March 10th	780	780	61.9	67.6
March 18th	768	576	64.9	68.2
March 25th	585	585	50.0	57.2
April 2nd	780	585	51.7	53.6
April 11th	768	768	64.0	67.5
Total	4041	3654	Aver. 57.9	61.7

In Experiment No. 1 the percentage of chicks obtained from eggs produced by the cod liver oil-fed birds exceeded that obtained from the control birds. The difference in hatchability varied somewhat with the different incubations, but averaging the three incubations, it was found that the hatchability was 68 per cent. for the experimental birds and 44 per cent. for the control birds. In other words, the cod liver oil-fed birds averaged 24 more chicks per 100 than the control birds.

In each of the six incubations made in Experiment No. 2 the percentage hatchability of eggs produced by the control birds exceeded that of eggs produced by the experimental birds. The results obtained with this flock of Rhode Island Reds are not in agreement with the results obtained with the other flock of Reds, nor with the results obtained with either of the other breeds.

As yet, however, the data concerning the factor or factors responsible for the lower hatchability in the cod liver oil-fed birds than in the control birds are insufficient to warrant any definite conclusion in this connection.

WHITE LEGHORNS.

In Experiment No. 4, conducted with White Leghorns, more extensive data were obtained than in the previous experiment. Unfortunately it was impossible to arrange for experimental and control birds of the same age, but all other conditions were identical for the two lots.

Previous to feeding cod liver oil, data were collected concerning the hatchability of 4,015 eggs produced by 200-bird pen of mature (approximately $1\frac{1}{2}$ years old) hens, and 200-bird pen of pullets. Since the hatchability of the pullets was materially higher than that of the older birds, it seemed best to use the pullets as control birds and to feed cod liver oil to the mature birds. The results of our tests are summarised below.

After feeding of cod liver oil was commenced the hatchability of eggs produced by the experimental birds exceeded in each incubation that of eggs obtained from the control birds. An average of sixteen more chicks per 100 eggs was obtained from the cod liver oil-fed birds than from the control birds:—

HATCHABILITY EXPERIMENTS WITH WHITE LEGHORNS.

Experiment No. 3—No. of Birds: 200 Experimental, 200 Control.
Previous to Feeding Oil.

Incubation Date.	Number of eggs set.		Hntchability of all eggs set.	
	Expt.	Control.	Expt.	Control.
January 18th ...	600	750	66.2	74.3
January 29th ...	721	453	55.0	77.0
February 10th ...	481	706	50.0	77.0
February 21st ...	696	608	65.2	75.3
Total	2498	1517	Aver. 59.1	75.9
After Feeding Oil.				
March 5th	590	205	75.0	59.9
March 16th	521	601	81.0	63.2
March 28th	495	454	79.6	70.5
Total	1606	1206	Aver. 78.5	62.5

It is interesting to note that, with the exception of the first incubation, the hatchability of eggs from control birds decreased until the middle of March. At this time the hatchability of both experimental and control birds increased materially. This increase in hatchability coincides with permitting the birds limited range in yards. Since the yards received direct sunlight, one naturally inquires regarding the effect of the ultra-violet light on increasing hatchability. It may be further noted, however, that the sunshine which the control birds received did not have as great influence on increasing hatchability as did the combined sunshine and cod liver oil received by the experimental birds.

BARRED ROCKS.

The results obtained in Experiment No. 5 with Barred Rocks are of particular interest due to the many incubations and to the large number of eggs incubated. Previous to feeding cod liver oil data were collected concerning the hatchability of the entire flock, which numbered about 800 birds. When cod liver oil was added to the ration, comparable birds were selected for the experimental and control flocks. The following table reports the results of the tests with Barred Rocks.

The percentage hatchability of 10,048 eggs included in the eight incubations previous to feeding cod liver oil varied from 43 per cent. to 57 per cent., with an average of 51.5 per cent. After the experimental and control birds had been selected, and the feeding of cod liver oil commenced, it was found that the hatchability of the eggs produced by the cod liver oil-fed birds exceeded in each of the five incubations that of the eggs produced by the control birds. The average percentage hatchability for the experimental birds was 65.9 per cent., as compared with 59 per cent. for the control birds. This means that the birds receiving cod liver oil produced approximately seven chicks more per 100 eggs than the control birds.

HATCHABILITY EXPERIMENTS WITH BARRED ROCKS.

Experiment No. 4—No. of Birds: 168 Experimental, 168 Control.
Previous to Feeding Oil.

Incubation Date.	Number of eggs set.	Hatchability of all eggs set.
January 11th	1256	48.2
January 18th	1256	55.7
January 25th	1256	43.1
February 2nd	1256	45.3
February 9th	1256	50.7
February 16th	1256	56.8
February 24th	1256	57.3
March 3rd	1256	55.1
Total	10048	Aver. 51.5

After Feeding Oil.

Incubation Date.	Number of Eggs set.		Hatchability of all eggs set.	
	Expt.	Control.	Expt.	Coet.ol.
April 10th	314	314	62.5	55.7
April 17th	314	314	62.5	59.2
April 25th	314	314	68.0	61.7
May 1st	314	314	71.3	66.8
May 9th	314	314	65.2	55.7
Total	1770	1770	Aver. 65.9	59.0

DISCUSSION.

The general conclusion to be drawn from the results of the experiments reported above is that atchability was materially increased by adding od liver oil to the ration of breeding hens. In iew of these results it is interesting to refer briefly o the results obtained by other investigators sing cod liver oil from the same lot as that used n the above experiments.

Banta conducted tests with Rhode Island Red birds confined during the entire experimental period. He incubated eggs at intervals from January to May. The total number of eggs incubated was 10,206, of which 8,229 were produced by the experimental birds and 1,977 by the control birds. The average hatchability (for all eggs incubated) was 75.3 per cent. for the eggs from the experimental birds, and 51.1 per cent. for the control birds. The results of this experiment show that feeding cod liver oil at the rate of one pint per 100 birds per week stimulated the reproductive activity of the experimental birds to the extent that they produced six chicks per 100 eggs more than the control birds.

Hughes conducted an extended test of the hatchability of eggs produced by control hens, hens irradiated with ultra-violet light, and hens fed cod liver oil at the rate of ½ c.c. of oil per hen per day. He reports that the hatchability of eggs from the control hens was 55 per cent., from irradiated hens was 70 per cent., and from the cod liver oil-fed hens was 74 per cent.

In reference to the higher hatchability obtained by feeding cod liver oil, Hughes says: "Just how much of the value is due to vitamin A and how much to the antirachitic factor will have to be determined in some future experiment."

From the foregoing, it is evident that the investigations of Banta and Hughes confirm our findings, that the cod liver oil under investigation increased hatchability. Inasmuch as the oil used by Banta, Hughes, and ourselves was all from the same lot, the data obtained apply only to the oil under consideration. Consequently, further investigations are necessary to determine whether the effect of this oil on reproduction is typical of cod liver oil in general, and, second, whether the cod liver oil under investigation increased hatchability by means of a fertility vitamin or as a consequence of improving the physiological condition of the birds.

The Goat-Keeper's Diary

No. V.

By **MRS. G. EPPS.**

1st May.

Among my correspondents this week I find a letter from a lady who asks me a most interesting question—i.e., whether it is advisable to keep a herd of goats or cows to provide her household with milk and a certain quantity of skim milk for poultry fattening. The amount of whole milk required is 2½ gallons and five of skim milk daily—in terms of cow's milk, but as goat's milk is richer in fat and solids, a less quantity of goat's milk would be required to serve the same purpose. Skim milk to the quantity of five gallons would, I fancy, be equivalent to 2½ gallons of whole milk, so my correspondent's needs would be roughly 4½ gallons a day. It is a poor goat that will not give 150 gallons a year, so a herd of ten goats should produce this quantity with ease. But a serious difficulty will arise, for it is a sad fact that you cannot get the supply of milk spread evenly over the year. Like hens, goats are at their most profitable time in the spring and early summer, gradually going downhill after August until they dry up, in many cases soon after Christmas, until their time of kidding. This difficulty could be obviated if it were possible to bring the milkers into season at any time of the year, but it is a very rare thing for a goat to come into season between April and September. There is a very definite time for them to breed, and no means has been discovered to induce them to deviate from their habits.

In my correspondent's case I fancy that the time of great plenty is the time when most milk would be required for fattening poultry, and probably the winter demand would not be so great. I think (though I am open to correction, as I have no experience with cows) that the number of cows required to produce the quantity of milk required would be not less than three. The accommodation and labour required would cost about the same for either herd. Goats are quickly milked, and a woman would manage them and have time to spare for poultry work or gardening. Cows involve heavier work owing to the bulk of food consumed, but goats get so much of their own food in the hedges, and at pasture, that no roots need be used, their bulkiest food consisting of hay where green food is not available. In the matter of cost of food, a goat will not cost more than £5 a year in food assuming that a fair amount of pasture is available. I am unable to give the cost of keeping cows, but I am sure that it is relatively more than the keep of a goat. The outlay on getting a herd together is decidedly in favour of the goat. High prices are difficult to obtain for goats, and

(Continued at Foot of Previous Column).

there is no more difficulty in getting a good animal for £3 than in getting one for twice that figure. Cows, I believe, would cost from £25 to £35 each. The risk of loss in the case of goats is negligible; they are subject to very few diseases, and the dairy farmer's two great enemies, contagious abortion and tubercle, are almost unknown.

I admit that goats are mischievous little beasts, light of foot and active, and very destructive in an orchard or garden. A cow on the other hand enjoys a phlegmatic temperament, and where one puts her, there is she likely to be found at the end of the day.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

A QUESTION OF DEDUCTION.

I read the following in an American poultry paper in reference to chick feeding.

The writer says that an article appeared in an issue of one of the American poultry papers on "Making a Home-Mixed Ration," which contained a formula from one of the foremost agricultural colleges. Many readers followed it, and the writer says:—

> "We visited one of them last August. The chicks started fine, but at eight weeks old were feather-eating. Not enough animal protein; more had to be added."

Now, one does not want to dogmatise on this point, but was the writer of this article correct in the inference he drew? We may assume, in the first place, that the well-known agricultural college would not have published a formula which had not been tested, and here is the writer of the above, visiting one farm, finding feather-eating prevalent, and immediately deduces that it is due to a deficiency of animal protein in the mash. Might not there have been other causes? Idleness, for example, the presence of insect life. There appears to me to be too great a tendency to make these simple problems too complex. Instead of looking for the simple solution we are looking for one which, in many cases, is very remote. To deficiencies in the food are often attributed many things which do not arise from this cause; toe-pecking, for example. An additional amount of animal protein to a mash may, in some cases, have caused serious digestive trouble, and have proved ruinous to chicks which were only eight weeks old. It is possible that an outbreak of feather-plucking could be checked by the addition of more animal protein to a mash, but it does not follow that because this additional amount checks it that the cause was necessarily due to a deficiency.

THE WORLD'S POULTRY CONGRESS.

What are we going to do in England for this Congress, which is to be held at Ottawa in July of next year? The United States Senate has passed a Bill authorising the appointment of official delegates, and appropriating twenty thousand dollars for the United States exhibit. One hopes that the British exhibit will this time receive such support that it will be far superior to that at Barcelona in 1924. I am not reflecting upon this exhibit or those who were responsible for it. They did the very best they could with the means at thei disposal, and had every reason to be proud of wha they did, but comparison with other countries made one feel that we had not lived up to our reputations

Of course, we understand that ours was on a purely voluntary basis, while ever other nation had Government support. It is to be hoped that this time we shall do a great deal better.

SIZE OF FLOCK AND FLOCK AVERAGE.

Here is an interesting question which has been put. The writer says:—

> "A few years ago I enlarged a 300-size laying house for Leghorns to 700 capacity, but on the whole I cannot say that I am satisfied. The flock average is below the 300-size house. I have been advised by a friend to again split up the house into smaller sections of 75 each. His opinion is that 75 is the most economical unit to run, even although it involves more labour. To make that alteration the whole outlay will at least be £200. Do you think that the extra yield per bird in flocks of 75 will justify this outlay?"

Although I am a believer in the small unit, I think this is going rather to the extreme. In my view the most economical unit, whether for layers, chick rearing or growing stock, is 100, and I contend that this will repay the extra cost of establishment and labour. On a properly-planned farm a unit of this size would not entail more labour than the larger units, and in some respects less.

I do not want to return to the old argument which we have had so often in these columns, but in answer to my correspondent's question, although I would advise him to split this house into small units, I think that the cost of the alterations for the 75 unit would be excessive, and that he would not see a return on the outlay. What do my readers think? He asks me: What would I do? and "Please be quite candid."Why do people say "Please be quite candid" when they write to me and ask for an opinion on a matter of this kind? It would not help them if I did otherwise, and my opinion is always a candid one, otherwise it would be worthless, indeed.

TESTING EGGS.

Incubation is over for another season, and I can't pretend to be sorry. Many members have written complaining of their inability to test eggs satisfactorily, some have paid a fairly high price for electric torches, which don't last long, and others have bought egg-testers which are far from being effective, while those usually supplied with incubators are all right if you are patient and don't mind jeopardising the chances of the egg hatching. There is no test to equal the daylight test, but how comparatively few people use it. Even when the sun isn't shining it is equal to any test with artificial light, and when it does shine it is infinitely superior. You will want a darkened room, one with a small window which can be easily covered with a square of cardboard. In this cut a small hole, take the egg from the tray in the position in which it is lying, the natural position, not holding it end upwards, but keep that side up which was up when you took the egg from the tray, hold it in front of the hole you have cut in the cardboard, which should be much smaller than the size of the egg, and you will easily be able to tell whether that egg is hatchable or not. Few people realise what mischief is done by holding an egg with the thick end up to test.

DUSTY LITTER.

One is so frequently asked what is the best litter for chicks. Nothing, in my opinion, equals chopped straw, and in a properly-ventilated brooder house this will last quite a long time, and is not too expensive. On the Experimental Farm we have one house with 141 chicks in it, these have been kept intensively for seven weeks, and it has only just been found necessary to change the litter. The house is 9 ft. x 6 ft. 6 in., as described by Mr. Dowden in the Register, and the front has been open nearly the whole time. The litter has remained perfectly dry, and it is quite certain that this problem of keeping it dry is very largely a question of ventilation. But the real object in writing this has reference to dusty litter and its effect on the chicks.

On many occasions this season members have written complaining of chicks sneezing, swollen eyes, etc., and in a very large number of them we have traced it directly to the dust from peat moss litter. Of course it is no use giving anything in the drinking water for this trouble, the only thing is to remove the cause; no harm would be done by slightly moistening the litter once a day. The fine dust from peat moss is a source of irritation to the respiratory organs, and often causes eye trouble.

AN INTERESTING CASE.

A Devonshire member writes to say, that some of his pullets indulged in a heavy meal on some potatoes which he was sprouting, and two of them are very dull, with full crops and slight diarrhoea. I have only known of one similar case. The sprouts of potatoes contain a poison known as "Solanine," and some years ago a hen was brought me here in just such a condition as my correspondent describes. The full crop was due to arrested digestion, the owner had given her a dose of castor oil, which I should have thought would have been sufficient to kill four hens, and she got all right. She may have done so without the oil, but she had it.

Modern Poultry Feeding.

By TOM NEWMAN.

(Continued from Page 329.)

FREE CHOICE TEST (II.).

An experiment is now (August, 1924) being conducted as to the advisability of allowing Black Orpingtons a free choice of various foods usually fed to them for egg production, as compared with the wet mash fed in troughs in the morning, chaffed greenstuff at midday, and grain fed in the litter at night.

The test commenced on 1st April, 1924, and the following are the particulars obtained up to 31st July.

As in the case of the test with White Leghorns just referred to, 120 Black Orpington pullets were selected as even in age, size, weight and quality as possible, and were divided into two pens of 60 birds each.

The weights of the birds were as follows :—

	No. 1: Free Choice.		No. 2: Wet Mash.	
Date	No. of birds	Weight lb.	No. of Birds	Weight lb
1st April	60	248½	60	242½
1st August	60	298	60	301

SYSTEM OF FEEDING.

No. 1, Free Choice Pen.—All the different varieties of food are placed in separate hoppers which are rat and sparrow-proof. The foods are as follows :—Bran, wheaten pollard, oaten pollard, barley pollard, meat meal, rape seed meal, wheat, Algerian oats, cracked maize and barley. Greenstuff is always available in a wire-netting basket, and consists of green oats, green barley, rye grass and milk thistles, cut fresh every day and placed in the basket whole, not chaffed.

No. 2, Wet Mash Pen.—The wet mash consists of bran, wheaten pollard and chaffed greenstuff, equal parts by measure, which is mixed as follows :—The bran is saturated with soup made from boiled livers; it is dried off with pollard to a nice crumbly condition, the chaffed greenstuff is then added and thoroughly mixed through it. The birds are given as much as they will eat. Chaffed greenstuff is fed at midday, and the evening feed of grain, consisting of wheat, Algerian oats, cracked maize, and barley, is scattered in the litter.

Minced raw onions are fed to each pen once a week at the rate of half an ounce to the bird. Shell grit and granulated charcoal are always available.

The birds are housed in a shed with about four square feet to the bird, no outside run being allowed. The floor is kept covered with scratching litter. Dust baths are provided.

Food consumption and egg production are as follows :—

Pen No. 1. Free Choice. Black Orpington.

Date	Bran	Pollard	Oat Pollard	Barley Pollard	Meat Meal	Rape Meal	Oats	Wheat	Barley	Maize	No. of Birds	Eggs Laid
April	13½	15½	5½	11	4	4	123	157	38½	64	60	563
May	23	27½	15½	15	5	5½	97	111	50½	67	60	835
June	17	31	11½	28	5½	8½	61	122½	34½	61	60	956
July	29	32	16	48	3½	4½	56	139½	54½	72	60	922
	82½	106	48½	102	18	22½	337	530	178	264		3276

Pen No. 2. Wet Mash. Black Orpington.

Date	Bran	Pollard	Oat Pollard	Barley Pollard	Meat Meal	Rape Meal	Oats	Wheat	Barley	Maize	No. of Birds	Eggs Laid
April	38	76	...	...	24	...	61	122	31	61	60	403
May	44½	89	...	...	21	...	66½	133½	33½	66½	60	635
June	40½	81	...	...	21	...	68	137½	34	68	60	867
July	38	76	...	...	17	...	73	146	37	73	60	990
	161	322	...	...	83	...	268½	539	135½	268½	...	2894

FREE CHOICE TEST (III.).

An experiment was recently carried out to test the advisability of allowing White Leghorns a free choice of the various foods—usually fed to birds for egg production, as compared with two other systems of feeding in operation at the State Research Farm, namely :—

(a) Dry mash kept in hoppers always available, chaffed greenstuff given at midday, and grain fed at night in the litter.

(b) Wet mash fed in troughs in the morning, chaffed greenstuff at midday, and grain fed in the litter at night.

The test commenced on 1st April, 1923, and concluded on 24th March, 1924—a period of 51 weeks. One hundred and eight White Leghorn pullets were divided into three lots of 36 birds, and each lot was in quality about equal to an ordinary farm flock. None of the birds used was bred from single-mated hens. The pullets were bred from pens of hens mated to selected cockerels, and the progeny of each cockerel was toe-marked.

At is has been our experience that the daughters of some male birds lay better than others (even when the male birds are full brothers) care was taken that the same number of daughters of each male bird used in the breeding pens was placed in each of the experimental pens, and every effort was made in the selection of the pullets to have the three pens as even as possible, in age, size, quality and breeding.

WEIGHT OF THE BIRDS.

At the commencement of the Test the 108 pullets weighed 337½ lbs., an average of 3 lbs. 2 ozs. per bird, and their average weight at the end of four months and at the conclusion of the Test is shown in the following table :—

	No. 1 : Free Choice.			No. 2 : Dry Mash.			No. 3 : Wet Mash		
Date	No. of birds	Weight lbs.	ozs.	No. of birds	Weight lbs.	ozs.	No. of birds	Weight lbs.	ozs.
1st April ...	36	3	1	36	3	3	36	3	2
2nd August	36	3	11½	36	3	10	36	3	9
24th March	36	3	6½	36	3	7	36	3	7¼

(To be Continued.)

HARPER-ADAMS' AGRICULTURAL COLLEGE, NEWPORT, SALOP. POULTRY LAYING TRIALS, 1925/26.

REPORT FOR THE SIXTH PERIOD.

A further increase in egg production is shown in the results for the sixth period of the Trials (21st March-17th April), a total of 30.785 eggs having been recorded in the Poultry Section by competing birds; an increase of 1,617 over the previous period. The individual average has increased from 19.8 to 20.9 eggs per bird. The production figure for the Duck Section shows a total of 3,098 eggs as against 2,944 for the previous period, with an increased individual average of 24.8 eggs per bird—a very noteworthy performance.

The leading positions at the end of the sixth period have not varied greatly from the previous period. In the Light Breed Section of the Championship, however, Mr. Metcalfe's pen of White Leghorns takes the premier position, followed by Mr. Frank Snowden's and Mr. Tom Barron's respective pens. The margin of value, however, in these pens is very slight. In the Heavy Breed Section of the Championship, Mr. Edgar Watson's pen of Wyandottes retains its commanding lead, but Capt. Gunston's pen of Wyandottes moves up to third position.

In the Small Flock Trials, the first three positions in each section are unchanged.

The Duck Section records an important change, Pen 242 (Mr. Godsmark) taking the first position by reason of the loss from his pen of a competing bird with a poor record, and the substitution of a reserve bird with an excellent score to its credit.

The following is a summary of the leading positions at the end of the sixth period:—

SUMMARY OF THE LEADING PENS.

CHAMPIONSHIP TRIALS.

Section 1—Light Breeds.—G. B. Metcalfe (W.L.), Lechlade, 1156 eggs; Frank Snowden (W.L.), Keighley, 1131; Tom Barron (W.L.), Catforth, 1112; F. A. Welch (W.L.), Cheltenham, 1120.

Section 2—Heavy Breeds.—E. Watson (W.W.), Colne, 1214 eggs; Tom Barron (W.W.), Catforth, 1147; Capt. D. W. Gunston, M.P. (W.W.), Reading, 1095; G. B. Metcalf (R.I.R.), Lechlade, 1058.

SMALL FLOCK TRIALS.

Section 1—White Leghorns.—Miss Helen Baylis, Stratford-on-Avon, 693 eggs; Lt.-Col. A. G. Eden, Bracken Cranswick, 660; Capt. J. Thompson, Shrewsbury, 642; G. Keith Simmons, Honiton, 664; Major J. G. Dugdale, Cirencester, 666.

Section 2—White Wyandottes.—Dr. A. Everson Harrisson, Daventry, 750; G. Keith Simmons, Honiton, 735; Frank Snowden, Keighley, 700; C. E. D. W. Freeman, Anglesey, 681; S. and T. Greenall, Grantham, 695.

Section 3—Rhode Island Reds.—Co-operative W. Society, Ltd., Manchester, 717 eggs; Miss C. E. Roads, Bletchley, 683; R. Green, Preston, 675; W. Mayor, Leyland, 636; Kingston Bagpuize P. Farm, Abingdon, Berks, 663.

Section 4—Light Sussex.—F. R. Welch, Bewdley, 720 eggs; F. Rossall Sandford, Shrewsbury, 664; A. Hughes, Malpas, 660; E. Clough, Uplyme, Nr. Lyme Regis, 669; Capt. A. A. Plimpton, Beverley, 660.

Section 5—Black Leghorns.—W. A. Lansley, Whitchurch, 638 eggs; R. A. Fawssett, New Radnor, 622; R. Rodwell, Nelson, 615; S. Street-Porter, Ely, 557.

Section 6—Any Other Light Breed.—W. Hamnett (Anc.), Blackpool, 687 eggs; H. Lynden Lemon (Bl. Br.), Devizes, 619; Dr. R. B. Reed (Anc.), Colchester, 623; Co-operative W Society, Ltd. (Anc.), Manchester, 599.

Section 7—Any Other Heavy Breed.—Miss P. Mills (B. Rks.), Bishop's Castle, 709 eggs; Capt. A. A. Plimpton (B. Rks.), Beverley, 665; Mrs. Drew (B. Rks.), Basingstoke, 648; F. R. Welch (B. Rks.), Bewdley, 638.

SINGLE BIRD TRIALS.

Section 1—White Leghorns.—F. G. Mansell, Aldridge, 139 eggs; Chivers and Sons, Ltd., Histon, 127; Tom Barron, Catforth, 122.

Section 2—White Wyandottes.—Frank Snowden, Keighley, 144 eggs; S. and T. Greenall, Grantham, 138; Tom Barron, Catforth, 133.

Section 3—Any Other Light Breed.—K. A. Crawford (W. Br.), Dilham, 127 eggs; W. H. A. Heald (Bl. L.), Hellingly, 109.

Section 4—Any Other Heavy Breed.—A. Hughes (L.S.), Malpas, 154 eggs; Miss M. Lawrence (R.I.R.), Glos., 137; Tom Barron (R.I.R.), Catforth, 133.

Duck Section.—H. S. Godsmark (W.R.), Ashford, 871 eggs; S. E. S. Burnett (K.C.), Arbroath, 791; R. A. and A. M. Johnson (W.R.), Chalford, 784; Wilson Beattie (K.C.), Rothersthorpe, 766; O. C. Brown (K.C.), Appleby, Lincs., 759.

"The Bazaar" Challenge Cup.—Dr. A. Everson Harrisson (W.W.), Daventry, 750 eggs; Tom Barron (W.L.), Catforth, 741; G. B. Metcalfe (R.I.R.), Lechlade, 718; Edgar Watson (W.W.), Colne, 713; G. Keith Simmons (W.W.), Honiton, 735.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

'BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

A. D. (Co. Down) writes that he has some pure-bred Wyandottes which show symptoms of leg weakness. They are fourteen weeks old, and they lose the power of their legs. They are fed on maize meal, bran and sharps, and meat and bone meal. They have been confined in a small run, and have not been getting oyster shell or flint grit. A. D. wishes to know how this can be arrested, and what remedy to apply.—The birds appear to be suffering from a deficiency of calcium salts. The mash used is not suitable for the birds. The following would be better:—2lbs. bran, 1lb. alfalfa meal, 4lbs. middlings, 1½lbs. Sussex ground oats, ½lb. maize meal, and ½lb. fish meal, and my correspondent should add five ounces of the following mixture to every ten pounds of the mash:—60 parts steamed bone flour, 20 parts common salt, and 20 parts powdered oyster shell.

"Barnedotte" (Sligo) writes as to his next season's breeding. He has a number of one and two-year old White Wyandottes, which lay plenty of eggs, but they are on the small side. He has also some Barnevelders which lay fine large eggs, but do not lay them often enough to be a paying proposition, and what he has in view for next season's breeding is a cross between the two breeds, and he asks what would be the result from:—(1) An egg-size, colour and number point of view. (2) From the sex-linked point of view of mating (a) White Wyandottes to Barnevelders, and (b) Barnevelders to White Wyandottes. He tells me that he has bought this year large egg White Wyandottes from probably the largest egg laying strain in the Three Kingdoms. He proposes to mate the cockerels from these sittings with the Barnevelder hens, and asks if I would suggest this cross.—If my correspondent crosses the Barnevelder males with the White Wyandottes, he will, if we accept the theory entirely that the fecundity is transmitted through the male, inevitably find that the pullets from this cross will be comparatively poor layers. That is, they would inherit the low fecundity of the Barnevelder compared with the high fecundity of the White Wyandottes. Therefore his best cross would be the White Wyandotte cockerels, which he has purchased this year from the large egg strain, and this strain I know to be a very prolific one at the same time, and mate with his Barnevelder hens. By this means he would secure the large egg in the progeny and greater prolificacy than with the pure Barnevelder, but I would not expect the cross to be as prolific as his pure Wyandottes. As to sex-linkage: By this cross, i.e., White Wyandotte males and Barnevelder hens, there would be no sex-linkage. In the reverse cross he would get gold pullets and silver males, but this cross we are not advising. I would not go so far as to say that the Barnevelders are not a paying proposition as egg-producers, and I cannot agree with the opinion expressed by the expert to my correspondent that this is the case. The Barnevelder will, no doubt, be developed into a very productive bird, but in that development it is possible that unless the greatest care is exercised, the size of egg, and also the colour will be lost. In any case, the best cross my correspondent could make would be the White Wyandotte cockerel, from the large egg strain, with his Barnevelder hens. The reverse cross would be a mistake.

R. B. (Berkshire) last year bought a tested Leghorn cock, and mated him to hens with records of from 160 to over 200. The result of this mating has been a complete failure as to eggs from the pullets. My correspondent has been in communication with the firm from whom he bought the cockerels, and they expressed their regret, but maintain that he bred them some L2 birds, and some of which had high records. What he would like to know is: Should this bird have not bred him some excellent layers, instead of "duds" if he were an L2 bird? This term has been so loosely used that I do not think that everyone appreciates its real meaning. We should, however, first have to know how the vendors define L2, but in any case had he been an L2 bird, as most people understand the definition, which is not the correct one, he would undoubtedly have bred, when mated to hens with such records as my correspondent mentions, some fairly good pullets. They should not all have been "duds." There are, of course, other factors to consider when such a catastrophe as this happens. The fecundity of pullets is often affected by bad rearing, but I do not suggest that this is so in this case. I gather from what the vendors say as to this bird breeding them some L2 birds that they do not quite understand what they are talking about.

W. T. T. E. (Orkney) has been told that incubator hatched chicks do not make suitable birds to keep for breeding stock, and asks if this is the case or not. Would I approve of pullets mated to cockerel? (3) Or pullets mated to two-year males? (4) Or cockerels mated to hens? He would like my opinion on the value for money of a poultry meal he is using. The price of the meal is 24s. per cwt., and he is using with it a meat and bone meal at 33s. 6d. per cwt.—In reply to his first question. It was certainly not a practical poultry-keeper who told my correspondent that incubator-hatched chicks do not make suitable birds to keep for breeding stock. One would think this old idea was crushed by this time. Chicks from an incubator, "W. T. T. E.," if healthy and vigorous, are quite as fit for breeding stock as those hatched under a hen. In answer to his second question, if the pullets were over ten months old and mated to cockerels over that age, I would see no objection to such a mating. In answer to his third question, there can be be no advantage in mating pullets to second season males. You cannot compensate for immaturity on the one side by mating to an old male on the other. (4) Cockerels mated to hens is an excellent mating. With regard to the sample of food. My correspondent cannot afford to pay these prices, and it is totally unnecessary. Put the most expensive ingredients into any mash you can obtain, and it could be mixed at 13s. 6d. per cwt. I will try and comply with my correspondent's request for an article on the "Handling of Fowls" as the year goes round.

F. D. (Laindon) sends me a sample of what he describes as clover meal. This is nothing more or less than the seed pods of the clover—the residue from the clover after it has been threshed for seed. We thought the S.P.B.A. had killed the sale of this rubbish, but it appears to have been placed on the market again. F. D. will be well advised, when buying clover meal, to look for the leaf, for this is the only part of the plant which has the slightest value as a poultry food.

T. B. S. (Kirkcaldy) has about 600 chickens, a pen of which have developed sneezing colds; apart from this they are perfectly healthy, growing well, and not hanging in any way. This is my correspondent's third year, and up to now he has had no trouble. He has also lost hens from dropsy, and asks if heavy production causes this. The chickens are on free range new ground. The first thing is to find the cause of this sneezing. Is there any crowding at night, as is often the case with young growing chicken? Are they in a well-ventilated house? Have they been allowed to run out in long wet grass? If any of these conditions exist, no treatment will avail until the cause is removed. The best remedy then would be 40 grains of citrate of iron and quinine to the gallon of drinking water. With regard to the dropsy, I am assuming this is abdominal dropsy. There would be no connection with this and heavy production, or, rather I would say, that heavy production would not cause this. It may in the first place be due to a mild case of peritonitis, which has continued for a long time without becoming serious, or there may be some obstruction of the venous circulation or some structural disease of the abdominal organs.

C. D. (Horeham Road) has an epidemic of cannabilism in two broods, and can get no local opinion or help. Everyone he has asked has never heard of such an epidemic. No. 1 brood, 584 White Leghorns, hatched May 9th—a healthy lively lot, with not a sign of diarrhoea. Mortality during the first and second week was normal. Trouble began by picking at the vent, and finally pulling out the intestines, and actually eating half the hind quarters if the victims are not removed in time. They are fed on wet mash of pure ground oats, four feeds a day, and one feed of groats and cracked wheat. Every fine day they have a large grass run of virgin grass. No. 2 brood, the epidemic is much the same. 493 Rhodes and White Leghorns mixed, housed in a laying shed 30 x 10. Feeding same as before, with liberty in a run 50 yards in diameter. No signs of sore or bare vents until cannibalism starts. The eggs were purchased from same source as three previous hatches not affected with the same trouble. (2) The next question is, how to feed early February Wyandottes, Rhode Island Reds, and Barred Rocks to keep them from laying until October. (3) How to feed the Rhodes hatched April 16th, now suffering from cannibalism. Cannibalism as described by my correspondent, although of rare occurrence, does break out occasionally, and it not easily checked. We have first to consider causes. It has been stated to be hereditary, and from one remark of "C. D." I infer that he thinks this to be the case. It is said to be due to deficiencies in the food, notably of iron, but I prefer to look for the more simple solution first. Vicious habit, a chick suffering from worms is pecked by another; blood is drawn, and the mischief begins. (2) Blood in the excrement. (3) A torn vent. We may dismiss the idea that the trouble is hereditary. This has been suggested with toe-picking, and will not bear examination. Deficiencies in the food—possible my correspondent's feeding would afford an excellent example for those to quote who explain these outbreaks in this way. As to treatment—if it cannot be stopped in any other way, the best thing to do will be to glut the chicks with raw meat, preferably bullocks' lites. I have stopped a similar outbreak in a flock of White Leghorns in this way when everything else failed. Before trying this, however, I would suggest that the chicks are given more range, ample green food supplied, and sulphate of iron given in the drinking water. The best way to give this is to dissolve two ounces in a quart of water, and add one ounce of the solution to every gallon of drinking water, and allow the birds nothing else to drink. A change of the feeding is also most desirable. The mash should be:—Bran 3lbs., middlings 4lbs., Sussex ground oats 2lbs., meat meal ½lb. With regard to retarding the laying of the February-hatched Wyandottes, Reds and Rocks, my correspondent should be careful, as he may not only retard laying, but may check bodily development. It would be advisable not to feed maize in any form, and not more than five per cent. animal food. Early maturity is an inherited factor, and early egg production is not primarily due to feeding.

POST-MORTEMS.

L. J. B. The post-mortem examination of the chick showed that impaction of the gizzard and the first four inches of the intestines had occurred. The impaction consisted of a mass of tangled grass forming a veritable "rope," which the digestive organs were quite unable to cope with. Young birds should be kept off long grass until it has either been cut or fed down, as this is by no means an uncommon cause of casualties.

G. M. The post-mortem examination of the W.W. No. 338 showed that the cause was pneumonia. On the right side both lung and air sac were involved in an abscess caused by air sac mites which were found in numbers. Treatment has generally been found to be useless, but consists of making the birds inhale the fumes of burning sulphur or those given off when some Stockholm tar is poured on a hot shovel.

E. M. T. The post-mortem examination of the chick showed that it was affected with rickets, bone formation being so backward and undeveloped that the long bones could be bent to any angle without fracture. The cause is complex, depending upon several conditions, rather than a specific one, but it is rightly termed a "deficiency" disease. The remedy is, as far as possible to supply these deficiencies in an available form that the body can make use of, and consists of the addition of two per cent. cod liver oil to the mash, and fish meal, ground oyster shell, and green food to the ration, and, above all, sunlight or the next best, daylight unfiltered by glass and exercise. To promote appetite and digestion, and as a tonic, the addition of 40 grains of citrate of iron and quinine to each gallon of the drinking water should prove of service. In cases occurring in pedigree birds, where some slight extra expense may be justified, it is well worth while substituting cod liver oil with Metagen (P. D. and Co.) for the plain cod-liver oil, or even to dose them individually with Metagen capsules, half a capsule twice daily being about the right dose for young chicks, four or five doses being all that are required in the average case.

J. W. The post-mortem examination of the W.L. showed that she was affected with avian diphtheria, or diphtheritic roup, the laryngx and a short portion of the windpipe being blocked with false membranes. The disease is contagious, and manifests itself in varying forms as:—(i.) catarrhal; (ii.) diphtheritic; (iii.) ocular; (iv.) pox, any of which may occur singly, in combinations, or following one another in any sequence. Any bird suffering from roup, even if only mildly affected, is a danger to others, as the virulence of the disease may be greatly exalted when passed on from one individual to another, and, therefore, an affected bird should be isolated for treatment. Dissolve four ounces of copper sulphate in a quart of soft water in an earthenware vessel, and of this stock solution add one ounce to each gallon of the drinking water throughout the outbreak, and to the wet mash two grains of powdered Peruvian bark should be added daily for each bird. Remove the yellow patches from the mouth and throat by scraping, and rub the underlying raw surface with a silver nitrate pencil, and do the same for any pox eruptions on the heads, combs, etc. Use but little litter, and keep this constantly collected and burned, and disinfect thoroughly the isolation premises at least once weekly, paying particular attention to those parts that have become soiled by the excreta. Grain should be fed from troughs, and not scattered on the ground, or in the litter, and the feeding vessels should be so placed that they do not become contaminated. Every care should be taken to disinfect the hands and boots after attending to the sick birds, as the infection is readily conveyed through these media.

F. W. P. The post-mortem examination of the ducklings showed that they were affected with cerebro-spinal meningitis, but whether this was caused by the sun, or was of the infectious variety of the disease, I am unable to state. I should, however, advise treating for the latter disease as well as the symtomatic treatment for cerebral and spinal inflammation, the remedies recommended being to place the affected birds in a cool and shady place, and to pour cold water over the heads; disinfect their quarters and equipment, and for each duckling add ten grains of sodium-hyposulphite to the mash daily; this is most conveniently done by dissolving the requisite amount of the salt in the water that is used for mixing.

M. I. O. The post-mortem examination of the duck showed that there was intense inflammation of the stomach and portions of the intestines, which is consistent with irritant poisoning, but I could not find any Rhododendron leaves or flowers in the stomach, nor can I find any mention of the latter being poisonous to birds in the authorities on toxicology. The lesions were quite consistent with lead poisoning, and the two victims may have discovered some old paint pots or putty, both of which are very attractive to birds for some unknown reason.

S. P. B. A.

COUNCIL MEETING.

The Monthly Meeting of the Council was held at the Memorial Hall on Wednesday, May 19th.

Present :—Mrs. Hunter (President), in the chair, Miss Maddison, Messrs. John Smart, P. Hedworth Foulkes, A. Harold Paine, Bostock Smith, Fletcher-Hearnshaw, J. H. Dowden, Lester Spurgeon, A. E. Hamlin, the Treasurer and the Secretary.

The Secretary announced that Mr. Kitson had written, saying he would be unable to attend the meeting owing to illness.

An apology for non-attendance was also received from Mr. Meekings.

It was proposed by the President that a letter be written to Mr. Kitson expressing regret at his illness, and wishing him a speedy recovery. This was agreed to unanimously.

Secretary's Report.—The Secretary reported that 131 new members had been elected during the month of April. This was double the number for the corresponding month last year.

Food Purchase Scheme.—Interest in the Food Purchase Scheme had greatly increased, and the quantity supplied to members during April beat all previous records. They had been able to supply members who were in difficulties during the strike, the food having been sent from as far as Bristol to Pangbourne by road, and the services had been very much appreciated by members who would otherwise have been stranded.

Mr. Foulkes moved that a vote of congratulation and thanks be accorded the staff at Rudgwick for their work during the strike. This was seconded by Mr. Bostock Smith, and carried unanimously.

"Eggs" Committee Report.—In the absence of the Chairman the report, submitted by the Secretary, was to the effect that the circulation was steadily increasing. In spite of great difficulties they had been able to publish the issue for May 5th.

Experimental Farm.—Mr. Foulkes reported that a Committee had been organised, with himself as chairman, and Miss Maddison as Secretary. The Committee had visited Rudgwick, and had been well satisfied with the farm and the health of the flock.

Certain suggestions had been made as to future experimental work, and it was agreed to buy 60 Light Sussex pullets.

The President invited the Council to hold their next meeting at Knockholt on June 23rd. This invitation was gratefully accepted.

National Poultry Parliament.—Arrangements as to the meeting of the National Poultry Parliament were left in the hands of the President, Mr. Bostock Smith, Mr. Foulkes, and the Secretary.

Subscriptions.—Mr. Foulkes gave notice that he would move at the next meeting of the Council, that the minimum subscription should be raised to 5s. 6d. per member, the 6d. to be paid to the funds of the National Poultry Council.

This concluded the business of the meeting.

THREE COUNTIES SHOW.

Our members are reminded that the Three Counties Show will be held at Gloucester on the 8th, 9th and 10th June.

The S.P.B.A. Stand will be in Shed No. 26, Stand No. 123. We shall be happy to welcome any of our members and their friends at this Stand.

Arrangements are being made for a dinner of the Western Counties Branch, to be held on the 2nd day of the Show, followed by a Conference, at which Mr. Dowden, Mrs. Newman and myself will speak on "Commercial Poultry Farming," "Utility Shows—Their Use and Abuse," and the "Intensive System," respectively.

THE NATIONAL UTILITY POULTRY SOCIETY,
in conjunction with the
LONDON AND NORTH EASTERN RAILWAY COMPANY.

NATIONAL EGG-LAYING TEST, 1925-26

(Recognised by the National Poultry Council),
Held at Dodnash Priory Farm, Bentley, Suffolk.

REPORT FOR THE SIXTH MONTH, 21st March, 1926, to 17th April, 1926.

The records for the sixth month disclose a further slight increase in production, but with the first half of the Test completed a decline in the monthly figures may from now on be anticipated. The total production for the month was 30,821 eggs, giving an average for the 28 days of 20.36 per bird. This brings the average of the flock for the first 24 weeks to 90 eggs per bird. The totals for the previous month were 29,788, an average of 19.58.

For the first time since the commencement of the Test the average of the light breeds as a whole exceeded that of the heavy varieties. This would point to a greater advance of recent years in the laying capabilities of the heavy breeds than of the non-sitting varieties, which were at one time regarded as pre-eminent in that respect. This is striking evidence of the invaluable work done by pedigree breeders in laying strains, and shows what can be accomplished by skilful selective breeding. The high average production in the Championship Section (21.41 eggs per bird) provides further evidence of the value of strain.

In that section the first five places in the list of leading pens are held by the heavy breeds, and the two highest breed averages to date are also claimed by them—namely, White Wyandottes and Buff Rocks, each with an average of over 95 eggs.

The percentage of first grade eggs touched 92.91, the highest point reached during the test—in this the showery weather experienced during the month was doubtless not without its influence.

Broodiness, though not excessive, was more prevalent—196 (one twice) of the heavies and 14 of the lights requiring treatment.

The general health of the flock was again good.

Particulars of the 1926-27 Test are now ready, and can be obtained on application.

J. N. LEIGH.

EGG PRODUCTION OF LEADING PENS.

Figures are egg and points to date respectively:—

Section 1.—Championship (10 pullets).—A. K. Speirs Alexander, Roughton, Norwich, 1208, 1208; Miss N. B. Maddison, Dane Hill, Sussex, 1081, 1076; J. E. Hughes, Ware, Herts, 1067, 1067; Leslie Williams, Liss, Hants, 1053, 1053; W. M. Golden, Leire, Rugby, 1040, 1039; R. A. and A. M. Johnson, Chalford, Glos., 1030, 1030.

Section 2.—White Leghorns (5 pullets).—Worcestershire Poultry Farm, Bromsgrove, 645, 628; Brig.-Gen. A. C. H. James, Bletchingley, Surrey, 567, 567; Mrs. E. M. L. Knight, Odstock, Salisbury, 551, 551; H. R. Hunter, Twyford, Winchester, 550, 550; John Potter, Wigan, 545, 545; Sydney Smith, Clifton, Notts., 525, 525.

Section 3.—Black Leghorns (5 pullets).—Frank Snowden, Cowling, Yorks, 550, 550; Richard Rodwell, Nelson, Lancs., 557, 542; Miss Mallam and Mrs. Gifford, Wantage, Berks., 498, 498; W. P. White, Colne, Lancs., 489, 489; Mrs. Mignon E. Clay, Leeds, 456, 456; C. L. and J. A. Thompson, Holywell, Wales, 440, 438.

Section 3a.—White Bresse (5 pullets).—E. P. Townley, Woodcote, Oxon, 467, 465; H. R. Hunter, Winchester, 450, 450; John Thornhill, Great Longstone, 470, 450; Sir Charles McGrigor, Bart., Bake, St. Germans, 432, 432; K. A. Crawford, Dilham, Norwich, 415, 415; J. H. Blaksley, West Moors, Dorset, 402, 390.

Section 4.—Any Other Light Breed (5 pullets).—J. H. Thompson, Alton, Hants, 494, 493; Stanley Street-Porter, Ely, Cambridge, 459, 459; J. R. Joy and Co., Tunbridge Wells, Sussex, 506, 453; Hon. Marjorie Cross, Broughton-in-Furness, 452, 452; W. R. Morris Hammond, Banbury, Oxon, 444, 444; Crossley Sykes, Midlothian, Scotland, 409, 409.

Continued on page 351.

Food Purchase Scheme.

ALL PRICES ARE SUBJECT TO MARKET FLUCTUATIONS.

May we state that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns, but the undermentioned are special items. Price list will be despatched to any member, if application is made to this office.

Referring to the odd cwts., which are now supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown. This is to cover the extra expenses and handling which the one cwt. business involves. If the total order for one firm amounts to 5 cwts. and over, this extra charge will not be made.

Will all members ordering under this scheme kindly note that orders received by second post on Saturdays cannot be dealt with until the following Monday.

All orders accompanied by cheque should be sent to Mr. Tom Newman, Secretary, Rudgwick, Sussex.

SPECIAL OFFERS.

FISH MEAL: F.O.R. GRIMSBY and TYNEMOUTH—5 cwts. and upwards, at 16/9 per cwt.; under 5 cwt. orders at 17/6 per cwt.

UNEXTRACTED DRIED YEAST: F.O.R. GRIMSBY and TYNEMOUTH—At 20/3 per cwt. for 5 cwt. orders; 21/- for orders under 5 cwts.

FISH MEAL, with the following analysis:—

OIL ... ... 4.5 per cent.
ALBUMINOIDS ... ... 55.60 per cent.
PHOSPHATES ... ... 16.18 per cent.

Prices F.O.R. LONDON

Under 5 cwts. ... ... 18/9 per cwt.
5 cwts. orders and upwards ... 17/9 per cwt.

FISH MEAL	17/9	F.O.R. SWANSEA.
" "	16/9	F.O.R. MIDDLESBRO'.
MAIZE GRITS	10/9	F.O.R. LONDON.
" "	10/9	F.O.R. IPSWICH.
MAIZE GERM MEAL ...	8/6	F.O.R. LONDON.
" " " ...	8/6	F.O.R. IPSWICH.
S. G. OATS	12/6	F.O.R. SUSSEX.
MEAT AND BONE MEAL	15/3	Carriage Paid.
MEAT MEAL	15/9	Carriage Paid.
ALFALFA	11/9	F.O.R. LONDON.
"	11/3	F.O.R. LONDON.
BONE FLOUR	9/6	F.O.R. LONDON.

LIMESTONE GRIT: F.O.R. BRADFORD (three grades)—Poultry, Medium. Chicken. In minimum orders of 5 cwts. at 2/6 per cwt.; single cwt. included in order for other goods from Bradford, at 2/9 per cwt.

SUSSEX GROUND OATS at 12/6 per cwt. F.O.R. Birmingham.

FISH MEAL:—

OIL ... ... under 4 per cent.
SALT ... ... under 3 per cent.
ALBUMINOIDS ... 55/60 per cent.
PHOSPHATES ... 15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—

ALBUMINOIDS ... 35/40 per cent.
FATS ... ... 10/15 per cent.
PHOSPHATES ... 25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—

ALBUMINOIDS ... 57/62 per cent.
FATS ... ... 10/15 per cent. at 15/6 per cwt.

F.O.R. MIDDLESBROUGH.

	MASHES					CHICK FEED		MIXED	S G.	FISH	MEAT	MEAT & BONE
	Layers	Growers	Breeders	Chick	Fattening	No. 1	No. 2	CORN	OATS	MEAL	MEAL	MEAL
Liverpool	11/-	11/3	12/3	12/3	12/3	17/-	14/9	12/9	14/9	20/3	18/9	14/9
London	11/9	11/9	12/9	13/-	12/9	17/9	16/3	14/6	13/6	17/6	...	13/6
London	11/-	11/-	12/-	12/3	11/9	17/6	16/-	...	...	...	...	...
Leith	10/3	10/3	10/9	11/3	11/3	16/3	15/9	11/9	13/-	18/9	...	13/3
Leicester	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	14/6	21/-	...	17/-
King's Lynn	11/3	11/3	11/6	12/6	11/9	17/3	15/6	...	15/-	18/9	...	13/9
Belfast	12/9	12/3	13/-	14/-	...	18/-	16/9	...	13/3	20/-	15/-	12/9
Bristol	11/3	11/3	12/-	12/9	12/-	17/9	15/9	14/-	13/3	17/9	..	12/9
Southampton	11/6	11/6	12/6	12/6	11/9	17/3	15/3	11/3	14/3	21/6	..	14/3
Plymouth	12/-	14/-	12/6	14/3	11/9	19/-	16/9	...	15/9	20/9	...	16/9
Aberdeen	11/6	11/6	13/-	13/-	13/-	15/6	14/3	...	12/6	17/6	..	12/6
Harrogate	11/6	11/6	12/3	12/9	12/9	17/6	15/3	...	13/6	20/-	...	13/6
Glasgow	12/-	12/-	12/-	13/-	12/-	17/-	15/-	12/-	13/6	19/3	17/3	15/3
Staffs	11/-	11/-	11/9	11/9	11/3	17/-	15/-	13/9	13/6	19/-	...	13/3
Herts	11/-	10/3	11/3	11/-	11/6	16/6	15/6	...	...	17/9	...	14/9
Bradford	11/6	11/6	12/3	12/9	12/3	17/6	15/9	...	...	17/6	...	14/-
Birmingham and Wolverhampton	10/9	10/9	11/6	11/6	11/-	16/9	14/6	11/9	12/6	18/9	...	13/9
Greenock	11/-	11/6	12/-	12/9	12/9	17/9	15/9	...	14/9	20/3	15/6	15/-
Tewkesbury	11/3	11/3	12/-	12/9	12/-	18/-	15/-	11/9	13/-	20/3	...	15/-
Bolton	11/0	11/3	12/3	12/3	12/-	17/-	15/3	13/-	13/6	20/3	...	14/-
Middlesbrough ...	11/3	11/-	11/3	12/3	12/-	17/6	16/3	...	13/6	16/9	...	12/9
Mid Sussex	11/3	11/-	11/6	12/3	11/6	18/3	16/3	13/-	12/6	19/6	17/6	17/-
Sussex (East) ...	11/6	11/9	12/6	12/-	12/3	17/6	15/-	...	...	...	...	...
Sussex	11/6	11/6	12/6	12/6	12/6	18/-	14/9	13/-	12/9	19/6	...	18/-
Essex	11/-	11/-	11/9	14/3	...	17/9	15/9	...	13/6	...	...	...
Birkenhead	10/9	11/3	11/9	12/3	12/-	17/-	15/-	12/9	12/6	19/6	...	13/9
Isle of Wight	11/9	12/-	13/6	15/-	...	18/6	17/6	12/6	16/-	21/-	...	15/-

It would be of very great assistance if members when ordering would always **STATE STATION** they wish goods despatched to, also their **NEAREST DEPOT.**

Section 5.—White Wyandottes (5 pullets).—G. H. Rayner, Grantham, Lincs., 609, 609; S. E. S. Burnett, Arbroath, Scotland, 603, 603; Captain J. Thompson, Shrewsbury, 588, 588; Arthur Gawthropp, Northampton, 577, 577; Alvaston Poultry Farm, Derby, 567, 567; S. and T. Greenall, Grantham, Lincs., 578, 559.

Section 6.—Rhode Island Reds (5 pullets).—J. B. V. and W. Cummings, Carlops, by Pencuik, Scotland, 611, 611; A. H. Donkin, Shorncliffe, 523, 523; H. J. Berry, Ottery St. Mary, Devon, 499, 497; H. R. Hunter, Winchester, 496, 496; W. and T. Salt, Enderby, Leicester, 526, 487; Gettern Model Poultry Farm, Southport, 487, 486.

Section 7.—Sussex (5 pullets).—Mrs. E. M. L. Knight, Odstock, Salisbury, 540, 540; Wilson Beattie, Rothersthorpe, Northampton, 490, 490; Mrs. F. G. Poole, Tunstall, Suffolk, 480, 480; Brig.-Gen. Kincaid-Smith, Clacton-on-Sea, Essex, 480, 479; Marcus W. Slade, High Wycombe, Bucks., 457, 457; Edward Clough, Lyme Regis, 454, 453.

Section 8.—Any Other Heavy Breed (5 pullets).—Miss Harrison Bell, Welwyn, Herts, 577, 576; Miss P. Mills, Bishops Castle, Salop, 525, 525; A. A. Plimpton, Beverley, E. Yorks, 517, 503; Miss C. Beck, Ware, 474, 474; Mrs. Ward-Jackson, Kingsland, Herefordshire, 459, 459; Col. S. Sandbach, Abergele, N. Wales, 433, 433.

Section 9.—For Small Breeders (2 pullets).—G. E. Pearson, Epperstone, Notts., 255, 255; J. M. Johnston, Southampton, 248, 248; E. Fownes, Handworth, Middlesex, 239, 239; Fred Deakin, Chester, 236, 236; M. W. Brightmore, Burbage, Leicester, 230, 230; Walter Westwood, Chester, 217, 217.

Section 10.—Teams of 5 Pullets.—Stourbridge Branch, Stourbridge, Worcester, 539, 539; Sheffield Branch, Sheffield, 456, 453; Colchester and District Branch, Colchester, 449, 449; Worcestershire Branch, Bewdley, Worcester, 422, 422.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

WESTERN COUNTIES BRANCH.

The following leter has been sent to all members of the S.P.B.A. residing in the counties covered by this branch, viz., Gloucester, Worcester, Hereford, Somerset, Wilts, and Monmouth:

"Dear Sir or Madam,—As no doubt you are aware, the Three Counties Agricultural Show is to be held at Gloucester on June 8th, 9th and 10th. The S.P.B.A. Council will have a stand at the Show, and Mr. and Mrs. Newman will be present each day.

The S.P.B.A. offer a Challenge Cup for the best bird in the Utility Section, open to members of the Western Counties Branch.

As a good many members of the Association residing in the Counties covered by this Branch will probably be present at this Show, it has been decided to hold a Conference of members at the Spread Eagle Hotel, Gloucester, on Wednesday evening, June 9th, to be preceded by a Dinner.

The Conference will be addressed by Mr. and Mrs. Newman, Mr. Dowden, and others, and it is also hoped to have a discussion and suggestions from members as to how best to form more sub-branches of the Western Counties Branch and to further the interests of the Association and the industry generally.

The Dinner will be at 6.45 p.m., tickets 3/6 each, and the Conference will follow immediately. Chairman: E. J. Bacon, Esq., President of the Branch.

Will members who intend being at the Dinner kindly return the enclosed form, filled in, to the Secretary on or before Wednesday, June 2nd. We hope as many as possible will attend both the Dinner and Conference, an excellent opportunity for meeting other members.

Yours faithfully,
F. A. WELCH (Chairman).
ERNEST A. CRAFT (Hon. Sec.).

Members of the parent Association wishing to join the branch should communicate with the Hon. Secretary (subscription, 2/6)."

At the Conference Mrs. Newman will speak on "Utility Shows. Their Use and Abuse." Mr. Newman on "Some Questions Asked," and Mr. J. H. Dowden on "Commercial Poultry Farming."

INTERNATIONAL EGG-LAYING TEST, 1925-26.

REPORT FOR SEVENTH MONTH (5th April to 2nd May, 1926).

The good egg output of the past few months has been well maintained during this period. Several birds have laid 28 eggs in 28 days, and the stock is in finer condition.

SUMMARY OF LEADING PENS.

Figures are total eggs and points to date respectively:—

Large Breeders—Section 1.—Miss A. Paul, Blairgowrie, 1257, 1381; I. B. Gow, Cobham, 1161, 1258; J. Underwood, Loughborough, 1229, 1245.

Large Breeders—Section 2.—R. Rodwell, Nelson, 1217, 1251; F. Snowden, Cowling, 1226, 1240; G. Mart, Euxton, 1101, 1127.

Large Breeders—Section 3.—C. Bates, Samlesbury, 1281, 1353; R. Rowell, Nelson, 1293, 1353; E. Yates, Penwortham, 1236, 1255.

Large Breeders—Section 4.—F. Harvey, Bretherton, 1337, 1389; R. Rodwell, Nelson, 1368, 1306; W. Beattie, Northampton, 1153, 1296.

Small Breeders—Section 5.—F. B. Evers-Swindell, Ruthin, 619, 634; A. V. Wallis, Oxford, 609, 681; H. Seddon, Holmfirth, 595, 647.

Small Breeders—Section 6.—R. W. Hully, Clifton, Manchester, 461, 517; Mrs. M. B. Clay, Long Preston, 511, 539; W. A. Lansley, Whitchurch, 512, 504.

Small Breeders—Section 7.—Dr. J. E. Helm, Rossendale, 573, 685; J. and W. Purdie, Lanark, 664, 688; S. and T. Greenall, Grantham, 602, 687.

Small Breeders—Section 8.—R. Hodgkinson and Son, Culcheth, 611, 637; Col. S. Sandbach, Abergele, 543, 595; R. Rawcliffe, Goosnargh, 575, 590.

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"Eggs."
The Official Organ of the Scientific Poultry Breeders' Association.
Wednesday, June 2nd, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.
Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

APPLICANTS FOR MEMBERSHIP.

Millar-Brownlie, J., 31, Lichfield Road, Wavertree, Liverpool.
Shiels, Capt. J. Allen, 9/16, Officers' Quarters, 20 Camp, Larkhall, Salisbury Plain.
Slack, E. M, Askham, East Markham, Newark.
Denniss, R. F., Elevage de la Cote, La Ferriere, Deux-Sevres, France.
Jones, W. H., Home Farm, Plas Newydd, Llanfair P.G., Anglesey.
Poole, Com. A. S. (R.D., R.N.R.), "Limasol," Verwood, Dorset.
Willis, E. P., Manor Farm, Bilbrook, Wolverhampton.
Bruce, R., P.O. Limuru, Kenya Colony, British East Africa.
Virtue, R. G., Chesterton, Nr. Leamington Spa, Warwickshire.
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Wallace, W., Ratton Lane, Hutton, Nr. Preston.
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Hart, R., Exbury, Nr. Southampton.
Cuthbert, W., Little Fenwick, Terregles, Dumfries.
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Checksfield, A. V., Bank Street, Ashford, Kent.
Happold, G., The Lime, Hollingbourne, Kent.
Towler, W. H., 30, Chester Street, Oxford.
Hunt, C. J., Grange Cottage, Green Road, Meanwood, Leeds.
Brooke, Mrs. M., High Wray House, Ambleside, Westmorland.

Single Bird—Section 9—Light.—A. V. Wallis, Oxford, 136, 175; W. Golden, Rugby, 151, 155; W. Rogers, Market Drayton, 148, 146.

Single Bird—Section 10—Heavy.—P. G. Espinasse, Oxon, 141, 159; J. Rainford, Penwortham, 125, 144; Gettern Model P.F., Ainsdale, 145, 147.

Juvenile Breeders—Section 11—Light.—R. Collinson, Garstang, 563, 579; Miss W. Banks, Freckleton, 528, 540; J. Collinson, Garstang, 549, 558.

Juvenile Breeders—Section 12—Heavy.—H. Sutton, Little Hoole, 658, 653; R. Gabbott, Little Hoole, 623, 615; Miss E. Barron, Catforth, 621, 616.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. Rhode Island Reds (Boucher). Eggs, Stock Cockerels and Pullets. List free. Satisfaction insisted on.

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Alex. Wilson, M.S.P.B.A., **Bankhead Poultry Farm, Bucksburn, Aberdeen, offers Pure-bred Light Sussex, White Leghorn. Selected Eggs from second season hens, 6s. 6d per sitting, carriage paid.**

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Three winter months.

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THE OFFICIAL ORGAN OF
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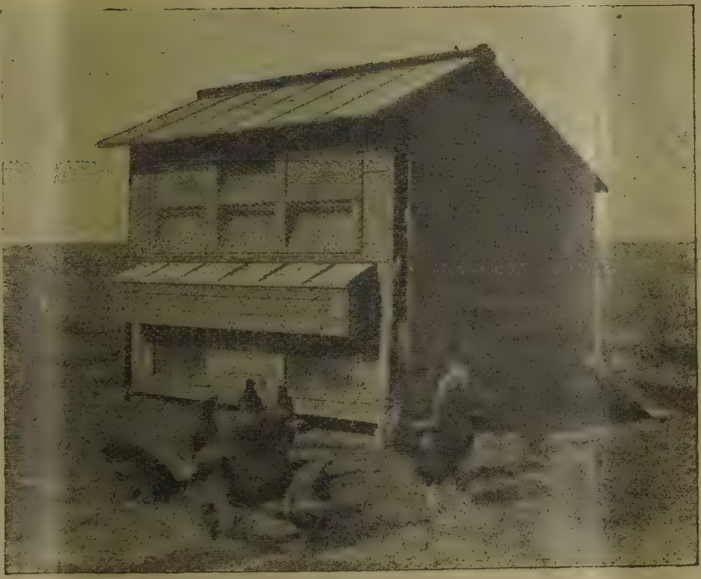

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This is why our Clients are so **KEEN TO SCRAP** other types and replace with the "ECLIPSE."

EVERY HOUSE is first ERECTED in our WORKS and is sent out COMPLETE and CARRIAGE PAID, and is without doubt the VERY BEST VALUE at present being offered to the poultry farmer. "ECLIPSE" Houses will be ON VIEW at the following SHOWS this season:—
"ESSEX" at Colchester, "NORFOLK" at Gt. Yarmouth, and "THE ROYAL" at Reading.

FULLEST PARTICULARS OF THE MANUFACTURERS—

HERBERT W. MARTIN, Perivale Poultry Farm & Appliance Works,

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PRIEST and SHAW

UNDER ROYAL PATRONAGE · I·O·W · ALWAYS WINTER EGGS

Pedigree Wyandottes **Pedigree Leghorns**

Growing Pullets Now Ready.

ANOTHER TESTIMONIAL.

Dorking, 25th May, 1926.

Dear Sirs,—Last year you supplied me with four Leghorns, with which I have been most pleased. Last month they laid 90 eggs. I am writing to know if you have any pullets of the same strain.—B.

The Firm with 12 Years' Experience.

SANDOWN, - - I.O.W.

YOUNG'S MINIMUM PRICES.

Mr. E. L. Woodgett, M.S.P.B.A., writes from Sneating Hall, Kirby-le-Soken, Essex, April 26th, 1926:—"The mash and grain are very good samples, and am well pleased with them. Please send me further 5 cwts."

ONE QUALITY—THE BEST.
ONE PRICE—THE LOWEST.
DISTANCE NO OBSTACLE—Carriage Saved by superior quality and lower first cost.

	10/20 cwts.	5 cwts.	1 cwt.
Newman's No. 1 Chick Feed	16/9	17/0	17/3
,, No. 2 ,, ,, ...	14/9	15/0	15/3
,, Chick Mash	11/6	11/9	12/0
,, Laying or Growing Mash	10/9	11/0	11/3
,, Breeders or Fattening Mash	11/3	11/6	11/9
Sussex Ground Oats	11/9	12/0	12/3
Meat and Bone Meal	14/6	14/9	15/0
Maize Germ Meal	8/6	8/9	9/0
Yellow Maize Meal	9/0	9/3	9/6
Soya Bean Meal	12/6	12/9	13/0
Bennett's Fish Meal	19/6	19/9	20/0
Alfalfa Meal, 97 p.c. fine green	13/6	13/9	14/0
Barley Meal (Pure)	10/6	10/9	11/0
Flaked Maize (Cooked)	11/0	11/3	11/6
Kibbled Maize (Screened)	9/9	10/0	10/3
Kaffir Corn	9/6	9/9	10/0
Poultry Mixture—no waste	12/9	13/0	13/3
(Wheat, Oats and Kibbled Maize.)			
Oyster Shell	5/6	5/9	6/0
Flint Grit, Cockle Shell, or Limestone	3/6	3/9	4/0

Per cwt. free on rails at Horley Stn. Delivered within 15 miles at small advance. Carriage paid prices quoted, also any other article and sample supplied.
Low Prices for 2 tons or more.

F. A. YOUNG, Junr. Farmers' Service Stores, STATION ROAD, HORLEY.

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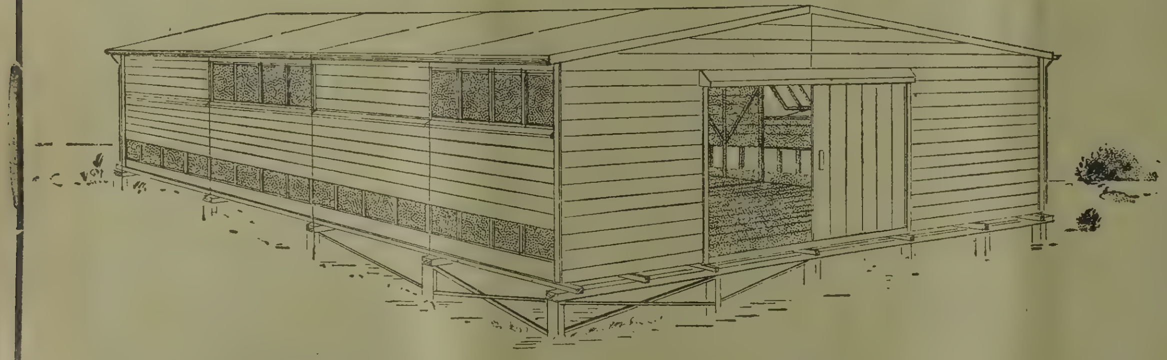

This house is a replica of Prof. C. Willard Thompson's 100 bird flock house, but made up on 'All-Purpose' lines; the arrangement of windows front and back is variable, so is the lay out o[f] nestblocks, dropping boards and perches.

The house in 20ft. × 20ft. may be treated as a nucleus for future extension or it may remain as a 100 flock house.

An 'All-Purpose' Model Type LX. similar to above mentioned in constructive details, but in 30ft. length by 15ft. depth, has been presented to the National Poultry Institute, where the house is used for adult stock on the Experimental Poultry Farm by permission of Prof. Willard C. Thompson and Dr. Crowther, the Principal of Harper Adams Agriculture College. Observations as to results obtained in this house, such as maintenance of health, with subsequent increase in egg yield, will be published from time to time in the Institute's Journal.

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EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, JUNE 9th, 1926.

Editorial.

PREPOTENCY.

We have been asked to explain what is meant by **Prepotency,** and, what is more difficult, what makes for prepotency? "Can we breed for it?" asks a correspondent, "or is it just breeder's luck?"

The subject is an interesting one, and, as it may lead to an interesting discussion, we will do our best to answer the question, and hope that some of our readers may be tempted to supplement what we have to say, or, better still, indicate where we may have gone astray.

We have two definitions of the word: **(1) An individual capable of impressing in a marked degree the desirable characters of his or her race and family upon the progeny. (2) Greater capacity on the part of one of the parents, as compared with the other, to transmit his or her characteristics to their offspring.**

If one of these definitions is correct, it would hardly seem possible the other could be so; the second does not appear to convey what is meant by prepotency. The characteristics of the one parent may be **dominant** to those of the other, but we want to distinguish between what is merely dominant and what is prepotent.

If, for example, we mate a pen of birds we may find that with certain individuals the characteristics of the male will prevail in the progeny, but with others of his mates the reverse will be the case. He then can scarcely be said to be "prepotent." His ability to transmit his characteristics depends rather on his mates than on himself.

The first definition is much more to our liking. It indicates the outstanding individual, depending not on the weak points in his mates but upon his own strong ones and the one who possesses certain characteristics in such a marked degree, that whatever his mates, his influence upon the progeny is infinitely greater than theirs, and the influence of such an individual may be traced through several generations, whereas, if we accept the second definition, we shall see this cannot be so.

If we accept this definition of prepotency (and we can find no better), we come to the second question: **"What makes for prepotency?"**

We must realise first **that the individual possesses all the characters of his race in a greater or lesser degree. Secondly, the effect of continuous selection for a specific character or characters.**

We may then say that selective breeding "makes for prepotency," because selection must be based on the characters most strongly developed in the individual. Such a bird is prepotent because all other racial characteristics are subordinated to those which are so powerfully developed in him. He has developed in him, in an unusual degree, the dominant characters of his race, and so he is able to impress these characters on his progeny in a very marked degree.

Our correspondent asks, "Is it breeder's luck?" To a limited extent it may be so. The careless or unobservant breeder may fail to recognise it, but the clever breeder will seize his opportunity, and will use such a bird to the utmost advantage. Nevertheless, we must not be misunderstood, we are not suggesting that you can breed for prepotency, only that continuous selection for a specific character makes for it as far as that character is concerned.

We are all perfectly aware that all the sons of a very highly-fecund hen are not of equal value as breeders. They will have inherited the power to transmit the dam's fecundity in different degrees. The constitution of the one may enable him to transmit it in the fullest degree, while the constitution of his brother may inhibit it.

Line-bred birds are more prepotent than others, it is said. This is probably true, as they have generations of selected individuals behind them, and we have there the concentration of the desired characters with little probability of the introduction of other characters which would influence them. But where selection has been made for several generations on the same lines, there exists the possibility that the crossing of two strains would not exert any influence on this quality—prepotency.

If we understand the problem aright, prepotency depends upon the degree in which the individual inherits the dominant characters of his race. We note that he inherits in a greater or lesser degree all the characters of his race. It is the degree in which he inherits certain characters which makes him prepotent, makes him able to impress those characters in an unusual degree on his progeny.

QUANTITY OF FOOD IN RELATION TO PRODUCTION.

The following figures must not be taken as a reliable guide. They are, as far as we are aware, the only ones available in this connection, and are published in answer to questions received from many of our readers of late. The test was made at the Missouri Laying Competition several years ago:—

100 lbs. of Feed Produced.

300 eggs when fed to Anconas.
268 ,, ,, ,, ,, White Leghorns.
251 ,, ,, ,, ,, Wyandottes.
230 ,, ,, ,, ,, Orpingtons.
225 ,, ,, ,, ,, Campines.
203 ,, ,, ,, ,, Minorcas.
201 ,, ,, ,, ,, Rhode Island Reds.
188 ,, ,, ,, ,, Plymouth Rocks.
179 ,, ,, ,, ,, Langshans.

Many of our readers will say that their experience will not admit agreement with these figures. The difference between the Plymouth Rock and the Orpington is too great, and we only publish the figures in the hope that something more reliable may now be available.

MIRFIELD AND DISTRICT POULTRY-KEEPERS ASSOCIATION LAYING TRIAL, 1925-26.

The Sixth Monthly period of the Test closed on April the 11th. The health of the flock is good. The following are the positions to date:—

Section 1 (Light, 3 birds).—N. Firth (W.L.), 1674 pts.; A. Mappin (W.L.), 1600; H. Buckley (W.L.), 1576; H. Cowrid (W.L.), 1560; E. Tate (W.L.), 1437; Davey and Son (B.L.), 1280.

Section 2 (Heavy, 3 birds).—J. Raistrick (R.I.R.), 1593 pts.; Scott Bros. (W.W.), 1539; A. G. V. Ermen (W.W.), 1509; A. G. V. Ermen (R.I.R.), 1462; F. Buckley (R.I.R.), 1450; A. G. V. Ermen (W.W.), 1450.

Section 3 (Single Bird, Light).—C. F. Fox (B.L.), 622 pts.; G. Shenton (Anc.), 594; A. Blackburn (W.L.), 592; H. Armitage (W.L.), 569; N. Firth (W.L.), 566; E. Tate (W.L.), **540.**

Section 4 (Single Bird, Heavy).—W. Saxton (W.W.), 861 pts.; Scott Bros. (R.I.R.), 613; G. Raistrick (W.W.), 587; Scott Bros. (R.I.R.), 580; J. Godfrey (R.I.R.), 571; Scott Bros. (W.W.), 542.

LANCASHIRE FEDERATION OF UTILITY POULTRY SOCIETIES LAYING COMPETITION.

Held at the Lancashire County Council Farm, Hutton, under the supervision of Mr. C. H. Dobbin, the County Poultry Instructor.

The visiting days are Tuesday and Thursday, or the first Saturday in each month, from 10 to 4 o'clock. Anyone wishing to pay a visit must get a permit from the Secretary of Agriculture, County Offices, Preston.

The winners of the Monthly Ribbons are as follows:—

Best Pen in each Section.—Messrs. T. Barron, F. C. Tomlinson, P. H. Sephton, and W. Wearden and Sons.

Best Bird in each Section.—Messrs. H. Sutton and Sons, J. Ashworth, H. Sutton and Sons, W. Wearden and Sons, W. B. Grimshaw, and H. Ormrod.

The following are the leading positions in each section, showing the number of eggs and points respectively:—

SEVENTH MONTH'S REPORT (1st April to 28th April, 1926).

Section 1—White Leghorns—Large Breeders (three birds).—P. Williamson, 381, 2099; R. Beesley, 326, 2022; A. Heap, 415, 1887; H. Cook, 341, 1876; C. Morey, 360, 1744; A. C. Harrison, 341, 1720.

Section 2—Any Other Variety Light—Large Breeders (three birds).—F. C. Tomlinson, 325, 1835; J. P. Willacy, 311, 1588; J. Ashworth (1 dead), 218, 1382; S. Street-Porter, 237, 1236; O. Rawlinson, 227, 952; H. Marquis (1 dead), 157, 882.

Section 3—White Wyandottes—Large Breeders (three birds).—H. Sutton and Sons, 419, 2462; Dr. J. E. Helm, 404, 2326; G. H. L. Armstrong, 357, 2090; J. T. Finn, 362, 1921; J. Rainford (1 dead), 293, 1801; A. G. V. Ermen, 377, 1778.

Section 4—Any Other Variety Heavy—Large Breeders (three birds).—R. Moon and Sons, 385, 2352; G. Cobham, 393, 2286; J. Basnett, 405, 2182; H. Booth, 353, 2116; T. B. Grice, 325, 2102; J. Ashworth, 389, 2059.

Section 5—Light Breeds—Small Breeders (single birds).—J. W. Halstead, 148, 908; W. R. Robinson, 132, 771; H. West, 132, 744; J. Thwaites, 135, 736; W. B. Grimshaw, 119, 649; H. West, 108, 613.

Section 6—Heavy Breeds—Small Breeders (single birds).—T. Plumb, 127, 723; G. A. Wolstenholme, 122, 720; C. Hargreaves, 126, 685; J. W. Pearson, 129, 619; Fort and Trippier, 100, 594; A. D. Walton, 116, 566.

Modern Poultry Feeding.

By TOM NEWMAN.

(Continued from Page 346.)

SYSTEM OF FEEDING.

No. 1, Free Choice Pen.—All the different varieties of food were placed in separate hoppers, which were vermin and sparrow-proof. The foods were as follows:—Bran, wheaten pollard, oaten pollard, barley pollard, meat meal, rape seed meal, wheat, Algerian oats (not clipped), cracked maize and barley. Greenstuff was always available in a wire netting basket; it consisted of green oats, green barley, rape, rye grass in winter, and lucerne in the summer. It was cut fresh every day, and placed in the basket whole, not chaffed.

No. 2, Dry Mash Pen.—The dry mash consisted of equal parts by measure of bran and wheat pollard; to every 100 lbs. of meal was added 10 lbs. of meat meal, 3 lbs. of powdered charcoal, and 5 lbs. of rape seed meal. This mash was always available. Chaffed greenstuff was fed at mid-day, and the evening meal of grain consisting of wheat, oats, cracked maize, and barley, was scattered in the scratching litter.

No. 3, Wet Mash Pen.—The wet mash consisted of bran, wheat, pollard and chaffed greenstuff, equal parts by measure and was mixed as follows: The bran was saturated with soup made from boiled livers, it was then dried off with pollard to a nice crumbly condition, and the chaffed greenstuff was added and thoroughly mixed through it. The birds were given as much as they would eat. Chaffed greenstuff was fed at mid-day, and the evening feed of grain, consisting of wheat, Algerian oats, cracked maize and barley, was scattered in the litter. Minced raw onions were fed to each pen once a week, at the rate of 1 lb. per pen. Shell grit and granulated charcoal were always available.

HOUSING.

The birds were housed in portion of a corrugated iron shed, 120 ft. by 20 ft., 9 ft. high in front, and 7 ft. at the back. The shed faces east, and the north, west and south walls are wind-proof. Windows are provided along the west wall for ventilation. The east side is closed in 2 ft. up from the floor, and 1 ft. down from the roof; the rest is wire-netted and no curtains were used. A portion of this shed was partitioned off with wire netting, and divided into three pens of equal size, about 260 square feet—a little over 7 square feet to the bird. The birds were kept in the pens throughout the Test. The floor was covered with litter to the depth of about 4 inches. Dropping boards were used under the perches, and dust baths were provided.

HEALTH OF THE BIRDS.

The health of the birds was good throughout the Test; there was no noticeable difference in any pen.

MONTHLY CONSUMPTION OF FOOD.

No. 1 Pen (36 birds) Free Choice.

Date	Bran	Pollard	Oat Pollard	Barley Pollard	Meat Meal	Rape Meal	Oats	Wheat	Barley	Maize	Eggs Laid
	lb.	lb.	lb.	lb	lb.	lb.	lb.	lb.	lb	lb.	
April	12	25	½	½	...	...	41¼	72	24¾	17	419
May	13¼	20	¼	½	...	...	32¼	96¾	21¾	26½	329
June	11¾	9½	¼	2	2½	...	48	54	14	37½	292
July	12¾	10¾	3½	...	11½	...	22¾	98	11¼	51¾	434
August	14¾	9¾	9	1	8	2½	30¼	96¾	24½	25¼	669
Sept.	16½	16½	12¾	3	5½	1	41½	108½	25½	33¾	700
Oct.	23½	19¾	17¼	1¾	8	1½	50¼	103½	14	27	743
Nov.	21½	29¼	2¾	¾	8½	...	57½	90	26	30¾	723
Dec.	20½	25	2¾	½	5¼	2½	32	91½	20	24¾	613
Jan.	18½	29	1½	2½	13¾	2½	32	85	26	29¼	554
Feb.	11½	19½	5½	3	3	1	63½	92	12	27½	449
Mar. 24	8	15	7	2¾	1½	½	24½	70	19	26½	326
	184¼	229	63	18¼	67½	11½	475¾	1058	238½	357½	6251

Pen No. 2 (36 Birds). Dry Mash

April	14	23½	...	...	3¾	...	18½	83	18½	...	281
May	13¾	23½	...	...	3½	...	22	108	22	...	287
June	15¾	31¾	...	...	5¾	...	25	109	...	18½	230
July	25¾	43½	...	...	10½	...	35	111	...	10	387
Aug.	34	57	...	...	11¾	2½	28	99	...	28	704
Sept.	33½	56½	...	...	9½	4	26	96	...	27	748
Oct.	37¼	61¾	...	...	12¼	3¼	26	103	26	...	749
Nov.	47¾	82¼	...	...	15¾	7¾	28	106	16	...	663
Dec.	29	48¼	...	...	9¾	4¾	20	110	20	...	598
Jan.	28	46¾	...	...	9½	4¾	28	99	28	...	572
Feb.	33	55	...	...	11	5½	50	65	36	...	519
Mar. 24	27	46	...	...	9	4½	33	66	16	...	363
	338¾	575¾	...	...	112	37	340½	1155	182½	83½	6101

Pen No. 3 (36 Birds.) Wet Mash.

April	25	40	...	...	4½	...	19½	88	19½	...	398
May	29½	49	...	...	10½	...	20	96	20	...	372
June	30	48	...	...	13½	...	20	88	...	14½	256
July	30	50	...	...	16	...	30	95	...	9	419
Aug.	32	52	...	...	20	...	25	90	...	25½	623
Sept.	27½	45½	...	...	16	...	26	92½	...	26	702
Oct.	27	54	...	...	18	...	24½	100	24½	...	775
Nov.	27	47	...	...	16	...	28	102	15	...	687
Dec.	26½	47½	...	...	12	...	20½	111½	20½	...	701
Jan.	27½	49½	...	...	18	...	27	95½	27	...	694
Feb.	28½	44	...	...	18	...	47	61	34	...	501
Mar. 24	24	32	...	...	10	...	33	66	16½	...	375
	334½	558½	...	...	172½	...	320½	1085	177	75	6503

FOOD CONSUMED AND ITS COST.

No. 1. Free Choice.

Food	Price	Quan. lb.	Value £	s.	d.
Bran ...	£6 per ton.	184½	0	11	0½
Pollard ...	£7 „ „	229	0	16	0
Oat Pollard ...	2/6 „ bush.	63	0	7	10½
Barley Pollard	2/0 „ „	18¼	0	1	9½
Meat Meal ...	£1 „ cwt.	67½	0	12	0
Rape Seed Meal	7/6 „ „	11½	0	0	9
Oats ...	3/6 „ bush.	475¾	2	1	7½
Wheat ...	4/9 „ „	1058	4	3	9
Barley ...	3/3 „ „	238½	0	15	6
Maize ...	6/0 „ „	357½	1	18	3½
Totals		2703½	11	8	7½

No. 2. Dry Mash.

Food	Price	Quan. lb.	Value £	s.	d.
Bran ...	£6 per ton.	338¾	1	0	3½
Pollard ...	£7 „ „	575¾	2	0	3½
Oat Pollard ...	2/6 „ bush.	...		...	
Barley Pollard	2/0 „ „	...		...	
Meat Meal ...	£1 „ cwt.	112	1	0	0
Rape Seed Meal	7/6 „ „	37	0	2	5½
Oats ...	3/6 „ bush.	340½	1	9	9½
Wheat ...	4/9 „ „	1155	4	11	5
Barley ...	3/3 „ „	182½	0	11	10
Maize ...	6/0 „ „	83½	0	8	11
Totals		2825	11	5	0

No. 3. Wet Mash.

Food	Price	Quan. lb.	Value £	s.	d.
Bran ...	£6 per ton.	334½	1	0	0½
Pollard ...	£7 „ „	558½	1	19	1
Oat Pollard ...	2/6 „ bush.	...		...	
Barley Pollard	2/0 „ „	...		...	
Meat Meal ...	£1 „ cwt.	172½	1	8	9
Rape Seed Meal	7/6 „ „	...		...	
Oats ...	3/6 „ bush.	320½	1	8	0½
Wheat ...	4/9 „ „	1085	4	5	10½
Barley ...	3/3 „ „	177	0	11	6
Maize ...	6/0 „ „	75	0	8	0
Totals		2723	11	1	3½

EGGS PRODUCED AND THEIR VALUE.

No. 1. Free Choice.

Month	Average Price per doz. s.	d.	No. of eggs laid	Value £	s.	d.
April	2	4½	419	4	2	11
May	2	6	329	3	8	6½
June	2	4½	292	2	17	3½
July	1	11	434	3	9	3¾
August	1	1¼	669	3	1	6¾
September	1	1	700	3	3	2¼
October	1	1	743	3	7	1
November	1	1¾	723	3	9	0½
December	1	3	613	3	3	10¼
January	1	3¼	554	2	18	8
February	1	9	449	3	5	5¼
March 24th	1	10	326	2	9	9½
Totals	...		6251	38	16	8¾

No. 2. Dry Mash.

Month	Average Price per doz. s.	d.	No. of eggs laid	Value £	s.	d.
April	2	4½	281	2	15	7¼
May	2	6	287	2	19	9½
June	2	4½	230	2	5	1
July	1	11	387	3	1	9¾
August	1	1¼	704	3	4	9¼
September	1	1	748	3	7	6¼
October	1	1	749	3	7	7¼
November	1	1¾	663	3	3	3¾
December	1	3	598	3	2	3
January	1	3¼	572	3	0	7
February	1	9	519	3	15	8¼
March 24th	1	10	363	2	15	5½
Totals	...		6101	36	19	6¾

No. 3. Wet Mash.

Month	Average Price per doz. s.	d.	No. of eggs laid	Value £	s.	d.
April	2	4½	398	3	18	9¼
May	2	6	372	3	17	6
June	2	4¼	256	2	10	2¾
July	1	11	419	3	6	11
August	1	1¼	623	2	17	4
September	1	1	702	3	3	4½
October	1	1	775	3	9	11½
November	1	1¾	687	3	5	7¼
December	1	3	701	3	13	0¼
January	1	3¼	694	3	13	6
February	1	9	501	3	13	0¾
March 24th	1	10	375	2	17	3¾
Totals	...		6503	40	6	7

SUMMARY.

	Average No. of eggs per bird	Return per bird			COST Mash		Grain		Total		Profit over cost of Feed	
		£	s.	d.	s.	d.	s	d	s.	d.	s.	d.
No. 1 Free Choice	173.64	1	1	6¾	1	4½	4	11½	6	4	15	2¾
No. 2 Dry Mash	169.47	1	0	6½	2	3¾	3	11¼	6	3	14	3½
No. 3 Wet Mash	180.64	1	2	4¾	2	5¼	3	8½	6	1¾	16	3

CONCLUSIONS FROM FREE CHOICE TEST (III.).

The results obtained in this experiment with the No. 1 Pen (Free Choice) indicate that White Leghorns can be trusted to balance their own ration and produce eggs economically.

Although they laid seven eggs per bird less, and cost 2¼d. per bird more to feed for the twelve months than the pen fed on the wet mash, it must be remembered that there was a considerable saving in labour in the feeding of the No. 1 Pen, as the feed hoppers had to be replenished on an average only twice a month; whereas the wet mash for No. 3 Pen had to be prepared and fed to the birds every morning, and the grain mixed and fed to them every evening.

A reference to the table showing the monthly food consumption should be sufficient to break down the prejudice existing amongst a number of poultry-keepers against the use of Algerian oats. The oats used in this experiment were only fair average quality feed oats, straight from the harvester, not clipped or graded, yet the birds in No. 1 (Free Choice) Pen ate more of them than of either maize or barley.

It was very noticeable during the test that the quantity of maize consumed varied with the weather. The highest consumption for the year was in July, which was the coldest and wettest month of the Test.

Rape seed meal was not placed in the pen till 1st August. From that date till the end of the test there was only one month in which they did not eat some of it. This meal is readily eaten by the birds when placed in the dry mash.

The fact that the birds in No. 1 Pen (Free Choice) consumed 1,556 lbs. more grain than mash may be accounted for by the cold weather during the winter and by the very mild summer.

It was noted that the No. 1 Pen (Free Choice) consumed a much larger quantity of greenstuff than either of the other two pens, and a considerable portion of it was eaten the last thing before the birds went to roost. In view of this fact, it was decided to feed greenstuff after the grain feed at night, to all the birds at the Research Farm, and this has resulted in a great improvement in the number of eggs laid.

MILK VERSUS MEAT.

An experiment is being carried on at the present time (August, 1924) to test the merits of dried buttermilk as against meat meal in feeding White Leghorns for egg production.

The test commenced on 1st April, 1924, and the following are the particulars obtained up to 31st July, 1924.

One hundred and twenty White Leghorn pullets were selected as even in age, size, quality and breeding as possible, and they were divided into two pens of 60 birds each. The weights of the birds were as follows:—

Date	No. 3 Milk Fed No. of Birds	Weight lbs.	No. 4 Meat Fed No of Birds	Weight lbs.
April 1st ...	60	187	60	188
August 1st ...	60	224	60	225½

SYSTEM OF FEEDING.

Both pens have dry mash in hoppers always available, chaffed greenstuff is fed at mid-day, and mixed grain in the litter at night; a small amount of chaffed greenstuff is fed after the grain feed at night. Both pens are housed and treated in exactly the same way, with the exception that to the dry mash fed to No. 3 pen 10 per cent. dried buttermilk is added. To the mash of No. 4 pen is added 10 per cent. meat meal instead of the dried butter milk. The mash fed to both pens consists of equal parts of bran and pollard by measure and 3 per cent. charcoal.

Food consumption and egg production as follows :—

Pen No. 3 Dry Mash. White Leghorns.

Dried Buttermilk.

	Bran	Pollard	Dried Butter-milk	Oats	Wheat	Barley	Maize	No. of Birds	Eggs Laid
April ...	56	94	19	57	113	28	57	60	732
May ...	52	86	17	62	124	31	62	60	914
June ...	43½	71½	14	63	126	31	63	60	803
July ...	52	86½	17½	69	138	34	69	60	878
	203½	338	67½	251	501	124	251	...	3327

Pen No. 4. Dry Mash. White Leghorns.

Meat Meal.

	Bran	Pollard	Meat Meal	Oats	Wheat	Barley	Maize	No. of Birds	Eggs Laid
April ...	48	80	16	57	113	28	57	60	532
May ...	36	60	12	62	124	31	62	60	645
June ...	34½	58	15½	63	126	31	63	60	556
July ...	44½	73½	14½	69	138	38	69	60	833
	163	271½	58	251	501	128	251	...	2566

HERTS COUNTY EGG-LAYING TRIALS.

To end of Seventh Period (1st April—28th, 1926).

Figures are eggs and points respectively :—

SECTION 1.—Open to any Breeder in the County.

Division A—Any Light Breed (6 pullets).—Mrs. Charles (W.L.), 770, 5759; Mr. H. Morgan (W.L.), 743, 5436; Hoo Poultry Farm (W.L.), 614, 4771.

Division B—Any Heavy Breed (6 pullets).—Dr. Douglas (W.W.), 824, 6410; Mr. Holloway (R.I.R.), 725, 5449; Mr. H. Morgan (W.W.), 680, 5129.

SECTION 2.—Open to Poultry-keepers whose total laying stock does not exceed 150 head.

Division A—Any Light Breed (3 pullets).—Dr. Douglas (W.L.), 344, 2719; Mr. Burnett (Bl. L.), 250, 1716.

Division B—Any Heavy Breed (3 pullets).—Mrs. Walrond (W.W.), 378, 2819; Mr. Lloyd (W.W.), 360, 2721.

CHESHIRE COUNTY COUNCIL EGG-LAYING COMPETITION (1925-26)—SINGLE BIRD TEST.

REPORT ON RESULTS FOR SEVENTH MONTH (1st April to 28th April).

The flock average for the month is 18.4 eggs per bird. The average for the light breeds is 18.6, and for the heavy breeds 18.3 per bird. Two birds in the light breed section did not lay. Ten birds were broody and one sick. One bird died as the result of a broken egg in the oviduct.

Figures are eggs for the seventh month, and total eggs to date respectively :—

Light Breeds.—A. Dixon (W.L.), 18, 139; Mrs. N. Viney (W.L.), 18, 131; A. D. Tobler (W.L.), 14, 124; Mrs. N. Viney (W.L.), 17, 133; Mrs. E. Johnson (W.L.), 19, 130; Mrs. E. Johnson (W.L.), 20, 121.

Heavy Breeds.—E. Paterson (Buff Orp.), 24, 133; Mrs. N. Viney (W.W.), 5, 122; Mrs. Mortimer (W.W.), 22, 140; J. Hignett (W.W.), 22, 124; W. Travis (W.W.), 17, 118; J. Riley (W.W.), 20, 120.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, "The Beeches, Rudgwick, Sussex.

THE ALARM OF THE EXTREMIST.

Mr. S. Fish has sent me a cutting from the "Manchester Evening Chronicle," giving an account of the extraordinary statements made by Dr. Stavros Damoglou, to the Vegetarian Conference in London.

Such an extremist can scarcely be taken seriously, and the request that we should refute these statements in the daily press is, I think, entirely unnecessary, as no man with ordinary common sense, after reading such utter nonsense as the following, would take it to heart :—

> "Anyone who indulges in large quantities of cow's milk develops the brains and mentality of a cow, and is only a cow in human form."

Following this the learned doctor asks :—

> "What about eggs?" and he contends there is no more filthy centre of infection and disease than eggs.

He then goes on to state:—

> "According to the official organ of the Breeders' Association, fowls were fed on dried blood, bad meat and fish, and at the end of two years the majority of these creatures died from consumption and cancer."

To what Breeders' Association is he referring, and to what "official organ?" What authority has he for stating that at the end of two years the majority of fowls die from consumption and cancer?

The world suffers from extremists, and it would seem that the average man has to protect himself from them.

The Vegetarian Society must be, indeed, in a bad way when it has to rely upon such absurd statements as those made by Dr. Damoglou.

If we followed Dr. Damoglou's line of reasoning, is it not far more probable that we should be likely to develop the brains and mentality of a cow on a vegetarian diet than on a mixed one? For surely a cow is a vegetarian, and we must assume that, if we follow Dr. Damoglou, the brains and mentality depend upon the food consumed.

Dr. Damoglau should also know that any bacteria which **may** exist in an egg would be rendered innocuous when it was cooked.

A CANADIAN MEMBER ON THE RECORD OF PERFORMANCE SCHEME.

There has been a great deal of controversy on the Stock Poultry Laying Scheme, and readers will remember the debate which took place on the subject at the last meeting of the National Poultry

Council, when the proposals drawn up by Ministry of Agriculture's Poultry Advisory Committee were referred to a committee appointed by the Council for consideration. The following is an extract from a letter received from Mr. Donald Porter, Cooksville, Ontario, who was a member of the S.P.B.A. years before he went overseas :—

> "I would strongly advocate British breeders of poultry following what Canada is doing as regards record of performance of bred-to-lay stock, and approval and banding of record of performance cockerels. Enquiries are being received from all over the world for Canadian poultry, as buyers can depend on getting stock guaranteed by the Canadian Government. Very good prices are being received for such birds.
>
> Canadian breeders will certainly do a big business in the near future in bred-to-lay stock. It is up to the Old Country to get into line at once."

A CURIOUS QUESTION.

A member writes :—"Presuming you had pullets with records of from 270 to 300, others from 240 to 270, and again others from 200 to 240, and from each group you were able to select a breeding pen, which group would you select, and why? My question is based on a remark made by a lecturer here recently. He asserted that pullets bred from hens with records round about 200 would be better layers than those with the higher records and would possess greater stamina?"

I think it will be agreed that the lecturer's statement is too general in character, and that he ignored one of the fundamental laws of breeding, "it is the individual that counts." He is basing the whole question on the actual records without the least consideration of the individual who made the record. It does not follow that because the first group have put up high records that they would necessarily breed inferior stock, each individual would have to be examined on its merits—size of body and of egg, type, vigour, etc. If in this group we have several individuals with that very fine bone so much beloved by judges at utility shows, I would scrap them, because I should consider that these records had been made at the expense of frame and vigour. It is by breeding from these very fine-boned birds that we get the weedy specimens which produce ricketty chicks, small eggs and poor resistance to disease. If, on the contrary, they were well-developed birds, with plenty of bone, I would not hesitate to breed from them. A hen's breeding value cannot be reliably estimated from any record she may make. With regard to breeding from birds in the third group, one would have to study the records very carefully. It is quite possible that a pullet laying only 200 eggs may suffer more from over-production than one laying 300. She may, for example, have laid her first egg at a very early age, and laid at a great rate for the first few weeks, exhausted herself and taken a long rest ; she would never recover from this early start, and as a breeder would be a failure. **The age at which the first egg is laid has a greater effect on a hen's constitution than the number of eggs she will lay in the year.**

BROODINESS.

Numerous queries are to hand from readers as to the best means to check broodiness. There is no great difficulty in this. Take it in the early stages, remove the hen to a coop with a slatted floor, feed sparingly, give a mild dose of Epsom salts, and in a few days she may be restored to the laying pen. But why not give these birds a chance, especially if you are keeping them for breeders or for eggs next winter, the rest will help them to recuperate. Eggs are cheap now, and the few that are missed won't matter much, and you are likely to get more in August and September. When eggs are threepence each then it is a different matter, but at this season I believe in letting the broodies take a short rest, they are all the better for it later. While on this subject I may refer to a curious loss of chicks through dusting a broody hen with sulphur, this was done very thoroughly before the chicks were placed with the hen, the result was that many of them died, and only the application of olive oil, which stopped the irritation, saved the rest.

SOME INTENSIVE RECORDS.

One of our members writes me in reference to the record of ten Light Sussex hens which have been kept intensively from the 29th October to the end of February. I give their monthly records :—

October	61 eggs.
November	129 ,,
December	187 ,,
January	193 ,,
February	164 ,,

(In February one hen went broody on the 15th and another on the 20th, and the third was crop-bound.)

March ... ... 178 eggs.

(Only seven hens were laying until the 20th.)

April ... ... 192 eggs.

(Eight hens laying until 20th, and nine after the 20th.)

May ... ... 103 eggs to the 19th of the month from nine hens.

As mentioned before, the hens were kept intensively until the end of February, when they were let out on to an earth run. These birds were fed according to S.P.B.A. mash (layers') until the end of January, when they were put on to our breeders' mash, and at the end of April on the layers' mash again.

I think this is a very wonderful record for Light Sussex, kept under such condition.

How many breeds are condemned as being unsuitable for intensive work or for backyard runs which would answer as well as any others if greater observation was used in feeding and management?

THE MARKETING OF EGGS.

I have received the following letter from Mr. A. J. Symes.

May I remind Mr. Symes that the question of marketing is now being considered by the National Poultry Council and the National Farmers' Union, and we hope that some organisation will take place. A suggestion has been made that the S.P.B.A. shall take the matter in hand. For the present I think we had better await events. We are all agreed that it is a very serious point, and heavy losses are incurred by our present methods of marketing, or rather to lack of method. If everything else fails then the S.P.B.A. must itself inaugurate a Marketing Conference:—

> "Dear Sir,—Having followed the correspondence closely in 'Eggs' for the last few weeks, I cannot help but think that things in general are looking up a bit for the poultry farmer. For instance, we are at last getting down to the root of B.W.D., Coccidiosis, likewise Aspergillosis, and I venture to think that another breeding season will see us practically without these terrible diseases. Also we now have (thanks to the S.P.B.A.) an admirable Food Purchase Scheme, but all this, in my humble opinion, is rather useless, **unless** something can be done for the marketing of eggs.
>
> This, I think, is a very serious point, and much more of a "bugbear" to poultry farmers than B.W.D., and other like diseases. We certainly do lose a few chicks per year from these causes, but we lose **hundreds of pounds** on the marketing of our eggs per year. Cannot something be done?

YORKSHIRE FEDERATION OF POULTRY SOCIETIES.

We have received a copy of the handbook from the Secretary of the above Society, Mr. A. Moore, who is acting as Editor.

It is an interesting little handbook, and contains a most interesting photographic view of the Yorkshire Federation Laying Test at Otley, which I visited some months ago, and which is certainly one of the best situated and best laid out laying tests in the kingdom. The final report of this test, which appears on page 29 of the handbook, has the merit of being extremely concise and informative. The average production (183.2 eggs per bird) is very satisfactory, and the average value of this production (£1 13s. 0d. per bird), which does not include faulty eggs, is an excellent criterion of the possibilities of the laying hen.

Mr. Percy Wainwright has an interesting article, entitled, "Hints to Feeding," while Mr. Edward Brown tells us much about the National Poultry Council.

It is a very interesting little handbook, and the price to non-members is 1s.

Eggs in Ultima Thule.

By "ORA PRO NOBIS."

It may interest some of your readers to hear how poultry fare in the Shetland Islands, the northmost part of Great Britain. As you are aware, the Board of Agriculture for Scotland have had a Poultry Station Scheme in force for some years, by means of which much has been done to improve the quality of the poultry in rural Scotland. This applies, perhaps, less in this county than in any other in Scotland. There were once a few "Stations" here; now there are none. The trouble of fulfilling the necessary conditions as to housing and trap-nesting for three winter months of pullets (not of ducks) appears to be too terrific. Except in the hands of a very few enlightened people, poultry are fed mainly on potatoes and bran, and fish (or meat) meal is unknown. Eggs of 1½ oz. are common, and generally dirty when sold, and of unknown age. Housing of poultry is still in the dim stages—no air, little light and much dirt, seldom cleared away. Broody hens are "cured" by being plunged in cold water, or stood in water for some time; brothers are constantly mated to sisters; pullets are freely bred from, etc., etc.

The so-called Shetland hen is a hardy mongrel, who lays few and small eggs (poor brute, how could she do otherwise?). The Shetland duck the same (they get even less food than hens). That is the bulky and dark side of the picture. There are, however, a few gleams of light and intelligence to be found. One Co-operative Society in the main island, and some merchants in the northmost island, have for some years bought eggs by weight, and this has had the desired effect in these two districts of giving the necessary inducement to local producers (nearly all small crofters) to keep pure-breds, which, even under the primitive conditions in which they live, lay more and larger eggs than the native mongrels. In a country like this, where there are no large producers, this system of buying by weight is apparently the only rough-and-ready method possible of grading, in the sense of giving the less-atrophied producers an advantage over the more atrophied, and is so far all to the good. But a very large part of these islands consists of boggy, undrained hill and moor. Frost is practically unknown, snow falls seldom, and lies only for short periods; therefore insect life is very abundant; too much so for a gardener's taste. The rainfall is not excessive, the atmosphere is damp, arable land is scarce, and during the summer months there is an increase of population for the herring fishing of some thousands, and these thousands of hardy fishermen have a taste for eggs, and particularly for duck eggs. Here is a potential market at their doors at nearly the best time of the year as regards production, and it is entirely neglected.

(Continued at Foot of Previous Column).

During the last few years there has been a series of very capable and efficient poultry and dairying instructresses provided by the North of Scotland College of Agriculture for the country. Their words of wisdom have indeed fallen on deaf ears. Can anyone envy them their job? For example, by request, one had a demonstration of butter-making at a local show; not one single person came to see the demonstration. Whereas the neighbouring archipelago of Orkney pays its whole agricultural rental twice over with eggs alone. The deaf adder is still predominant, both among merchants and producers.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

B. Z. (Farnham) has a Wyandotte pullet which persistently lays shell-less eggs, oyster shell is provided. The feed is not too stimulating; only this particular pullet is affected. She has a good winter record, and "B. Z." is anxious to save her if possible. An expert tells her that the pullet must be in an over-fat condition, but my correspondent is confident that is not the case. The trouble in this case is probably due to inflammation of the shell-forming portion of the oviduct, which no longer secretes lime. This may subside if egg production is discouraged, the pullet kept on a light cooling diet with plenty of green food, and all animal food is withheld. I am not able to suggest any other treatment. (2) In answer to the second question, the hatch, being delayed by the excess of moisture, the subsequent high mortality may be also traced to this cause, the lungs would probably be affected.

Linkage (Durham) asks me if this has been a "cockerel" year. He is a breeder of White Leghorns, and has a very much higher percentage of cockerels than pullets. The difficulty in disposing of these has driven him to the conclusion that it is more economical to knock them on the head as soon as it is possible to distinguish sex, and next season he proposes to use a sex-linked cross, as he prefers the Light breeds.—No, this has not been a "cockerel" year, as far as I am aware, "Linkage." Every year we get complaints of this sort from breeders, who have, or imagine they have, an abnormal percentage of cockerels. You will not get linkage with the White Leghorn, as the white of the Leghorn is dominant. The best cross with the Light breeds would be the Black and Cuckoo Leghorn. (2) The sample sent is feed oatmeal, excellent of its kind. It should not be sold as Sussex ground oats, and the price is too high.

New Reader (Doncaster) is troubled as to his pullets, which have suddenly gone off their feed, developed purple combs, are listless, while the excrement is of a mustard colour, and egg production has stopped. The latter is the effect of disease, and not the cause of it. My correspondent suspects the food, and and he is right in his conjecture. All the samples sent are good, except the biscuit meal, which is inferior, but harmless, and the fish meal, which is a thoroughly bad sample. containing an excessive amount of oil, and is fit only for manurial purposes. He should give the pullets a dose of Epsom salts, and an ample supply of fresh green food. There is no occasion to alter the formula, but it would be advisable to replace the fish meal with a good brand of meat and bone meal, and the biscuit meal with a better sample. If some of the pullets go into a moult he must not be surprised.

C. E. D. (Welland) has early March hatched Wyandotte chicks, which have "hung fire," and he wants an explanation and a remedy. There are so many possible explanations, and as "C. E. D." has supplied no details it is difficult to help him. His feeding is correct, and the suggestion he makes that maize germ meal will be better than biscuit meal is a mistaken idea. Variety in feeding is helpful, it is true, and the change may do good, but it will not be because the germ meal has a better feeding value than the biscuit. We must consider other possible causes—overcrowding, stale ground, insect life, and my correspondent must judge for himself as to the most likely cause. Are the birds perching? If not, it would be advisable to get them on to perches at once. Often development is checked by growing stock huddling in the corner of a house. (2) In answer to his second question—unabsorbed yolk is not a symptom of any one disease. It may be caused by digestive trouble, originating in over-feeding during the first few days, by chill, or by disease causing digestive trouble.

F. L. (Falkirk) is worried because his Light Sussex have developed feathers on the shanks. He paid a high price for the breeding pen, and is now of opinion that the stock is not pure, and he wants to know my opinion of the breeder.—The breeder is not to blame, "F. L." It is a case of reversion. The Light Brahma was used in the making of the Light Sussex, and the feathers come from that breed. You must remember that the individual carries all the characters of his race in a greater or lesser degree, and they will "out" sometimes. Presumably only a few individuals will show this defect, and if mated to a male free from it the progeny are not likely to show it. (2) In answer to your second question. I do not think it was definitely stated that the "cock-hen" fertilised eggs. Presumably you are alluding to one of the hens which developed male characteristics. It would not be possible for such a bird to fertilise an egg. You must have been misinformed.

Puzzled (Northants) bought 100 R.I. Red eggs, at a "stiff" price from a well-known breeder. Hatchability was only fair; chicks were small, reared under exactly the same conditions as his own. They have failed to "come along," although the mortality has been very low. The chicks were hatched in a Glevum incubator, with an equal number of his own chicks, and placed in the same brooder house, but there is no comparison between the two lots. His own are almost twice the size. My correspondent wants to know if I can explain, and offer him any help. The most probable explanation is that these chicks are from closely in-bred stock. We cannot attribute their lack of vigour to environmental conditions, for his own chicks have flourished under these same conditions. There is no active disease. Just that lack of vitality which one so often finds in closely in-bred stock. I am afraid I cannot help "Puzzled" much. He suggests tonics, but these are of little value where there is inherent weakness. I should be inclined to scrap the lot as such chicks rarely reach a healthy maturity, have a low resistant power to disease, and are a menace to the rest of the flock. The only thing, "Puzzled" can do is to feed well; plenty of milk would help, free range, and cod liver oil added to the mash. But I frankly don't think the the game worth the candle. We have had four such cases reported this year. In two of them we were able to trace it directly to close in-breeding, as the actual matings were supplied. In the third the breeder refused information. and in the fourth the admission was made that "it might have been too close," but we could not get the actual matings.

B. J. F. (Cheshire) has a Light Sussex hen with swollen face, the right side just below the eye. The swelling does not reach quite to the eye, and there is no discharge from the mouth or nostrils. She seems quite bright, and is laying. The details are not sufficient for me to judge whether this is a case of one-eyed roup or not, but I think not. The best thing my correspondent can do is to paint the swelling with iodine. It may be necessary to lance it later on. If that is done very great care should be taken in thoroughly disinfecting the wound, and keeping the bird isolated.

A. H. (Bolton) asks my opinion of the following formula:—20lbs. middlings, 5lbs. bran, 5lbs. ground oats, 2½lbs. alfalfa meal, 4lbs. fish meal, 5lbs. maize. The formula is an old one of my own and, therefore, I naturally think it a good one. This formula has been copied by nearly every poultry paper in the kingdom. It is well balanced, because it is rich in protein and minerals, particularly the calcium salts.

C. H. (Cork) has a flock of about 70 White Wyandotte chicks One she found dead at six weeks old. The report after post-mortem examination was coccidiosis. They are now nearly ten weeks old. and except one which disappeared, and may have been killed, she has lost no more. If they had the disease they must have got over it. What she wishes to know is whether they will be safe to keep as breeders. They appear healthy, but some have not feathered and grown as well as the others. Whether the disease was coccidiosis, or not, I am not in a position to say. When a brood is attacked at the age of six weeks the resistant power is much greater, and few succumb, although those which are attacked are generally stunted in growth and smaller than the average. I do not think my correspondent would be running any risk in breeding from this particular stock, if she would only make up her mind to kill and burn all those which are not feathering or growing as well as the others. It is very unlikely that the best developed birds have been attacked by the parasite.

M. H. B. (Sedlescombe) asks a number of questions: (1) She has two breeding pens of hens hatched in 1924 mated to 1925 cockerels, and she wishes to know if it will be all right to keep these for another breeding season, and would the hens begin laying in time to start hatching at the end of December or early January? If these are really good stock it would be advisable to keep them for another season, but much depends upon their quality. With careful management they should be laying at the end of the season or early in January. In reply to her second question as to whether she could breed from chicks hatched at the end of February, March, April and May, next spring with good results? She does not tell me what breed or variety these chicks are. If of the heavy breeds she might use the February birds as breeders. If of the light breeds, the February and March birds, but I would not advise her to use the April and May pullets. Her third question is whether father and daughter can be mated to obtain strong chicks, or is it best never to have related parents? Strong chicks can be obtained by mating father and daughter, but that depends upon the father and daughter—whether they themselves possess great constitutional vigour. There is no object in such a mating unless for a specific purpose, and it is wiser, unless the birds are exceptional in every respect not to mate them. As to length of time eggs can be kept before putting in an incubator or under a hen; it is not a question of length of time, as I have repeatedly stated in these columns. Every day the egg deteriorates, and the longer it is kept the less chance there is of its hatching, and the more the chick will be lacking in vitality. The best way to store eggs is to wrap them in several thicknesses of newspaper and pack them in bran on their sides at a temperature of about 50 degrees. Her next question is, "What type of house is best for a breeding pen?" I think she cannot do better than use the house described in the 1926 Register of the S.P.B.A., by Mr. Dowden. This is 9 ft. x 6 ft. 6 in., and would be an excellent house for a cockerel and ten birds. Her next question is, "When should a pullet start laying if hatched in February? This would depend on the breed, variety, strain, and many other circumstances, but under normal conditions we may say that a pullet should lay from six to 6½ months old. As to what is the best grain ration to feed fowls on? That depends a great deal on the condition of the bird and its production. Equal parts kibbled maize and wheat is a good ration, and I always prefer this to oats. The next question is, "How often is it best to feed chicks three months old and over?" Chicks over three months old should be fed three times daily. The next question is, "What is the best thing to fumigate an incubator and brooder with?" This has often been published in these columns before, but I give it again, as it may be useful to some of our readers. "Fumigation of incubators with formaldehyde between hatches is advised, especially if an outbreak of Bacillary White Diarrhoea is suspected. This method of disinfection is trustworthy when the air temperature is 65 degrees Fahrenheit, or over and the atmosphere is humid. The incubator should accordingly be placed in a warm room; it should be well moistened inside, and a little water left in the bottom. Every exit from the chamber should be pasted over with paper, and, before finally closing, a metal vessel should be inserted containing permanganate of potash crystals, over which double the weight of commercial formalin is poured. The incubator should then be finally sealed up and not opened for three or four hours. Two ounces of formalin and one of potassium permanganate are sufficient for every cubic feet. The same procedure may be adopted with brooders, which are, however, more troublesome to make airtight. Another method is to thoroughly swab or spray out incubators and brooders with methylated spirit." There are several more questions, but I have not space to answer them now, but, in answer to her last question, it is not all right to mix chicks together if some are two months and the others three months old. The younger chicks will inevitably suffer. If my correspondent becomes a member of the S.P.B.A. she will receive a copy of the Year Book and will find suitable mashes there for chicks of all ages.

C. B. (Wokingham) asks if I will tell him through these columns of a protein mixture. He had thought of using equal parts meat, fish and gluten meal, in order to include both animal and vegetable proteins, and also wishes to know if the inclusion of dried milk or blood meal will make a more complete mash. He also wishes to know whether maize germ meal is preferable to ordinary maize meal for use in a wet mash. I do not quite understand the reason for what he calls a "protein mixture" in so far as he suggests the mixing of a meat and fish meal. Fish meal has a high protein content, and is rich in lime phosphates. What is the object in mixing it with meat meal? Would it not be advisable to feed these alternately in order to give that variety to the food which is conducive to increased appetite? As to a "protein" mixture, I do not understand. He has the animal proteins in the fish and meat meal, the milk or blood meal, or green bone. If he wishes to use a vegetable protein he can use soya bean meal or yeast but he will have vegetable proteins in middlings, bran, or even ground oats and maize meal; in gluten meal if he wishes it. What I presume he requires is a "complete" protein, and he will find the nearest approach to this in fish meal and dried milk, and all the vegetable proteins in soya bean meal or yeast. Maize Germ meal has a better vitamin content than maize meal, and for this reason is preferable to the latter provided always a good sample can be obtained.

POST-MORTEMS.

W. W. The post-mortem examination of the young pullet showed that she was severely infested with worms, with consequent digestive disturbance. Fast them over night, and then give a small mash prepared as follows: For 100 birds take 1 lb. of chopped tobacco stems or cheap shag tobacco and steep for two hours in sufficient water to keep it covered, and then mix the whole with the small mash; two hours after give another mash, containing 11 ounces of Epsom salts per 100 birds. Repeat after a fortnight's interval. Keeping the birds in until after the purgative in the second mash has acted, in each instance, and collect and burn the droppings and voided worms. The floors of the houses should be cleaned and disinfected quite frequently to destroy worm eggs and embryos, and so prevent reinfection with the parasites.

A. C. H. The post-mortem examination of the W.L. showed that she was affected with Asthenia, which is a disease quite distinct from roup, being a catarrhal inflammation of the duodenum, caused by bacterial infection. Neither roup nor the vaccine treatment could produce this, although possibly a lowered vitality would render them more susceptible The disease is contagious, but not markedly so, through the media of the droppings, and affected birds should on this account be isolated for treatment or destroyed, and the infected quarters thoroughly disinfected with special reference to the floors and parts soiled by the excreta. To clear the bowels of mucous and bacteria, a dose of castor oil should precede treatment proper, the latter consisting in the daily administration of an intestinal antiseptic, such as Dimol 3-5 grains, or Salol 5 grains; and a digestive tonic, such as 4 grains of the following mixture:—Half a dram each of coriander seed, fennel, aniseed, cinchona; one dram each of gentian and ginger; sulphate of iron 15 grains.

Correspondence.

THE FLOCK-LAYING TEST.

Dear Mr. Newman,—I have just been reading the conditions sent out with the tender form of the Flock-Laying Test, a test to which you referred recently. I entirely agree with you that the Test affords a unique opportunity for obtaining important information as to the economic value of the various breeds, especially as not merely the number and value of the eggs is to be taken into account, but also feeding cost and carcase value. There is, however, one condition which appears to me to negative almost the whole value of the Test—namely, that " in order to ensure fair competition no tender will be considered **if made at a less price than 6/9 per bird,** which the promoter is advised is the average actual cost of production of birds at this age " (i.e., at maturity). Moreover, " the winners of each section can only be determined at the end of the test by the addition to the balance figure of the value by weight of the bird **less the original cost."**

Thus, whereas the Test is intended to provide breeders with accurate ascertained figures in regard to cost of production of the various breeds, the cost to maturity figure is arbitrarily laid down instead of being ascertained by actual observation. It is not merely that all breeds, light and heavy, are lumped together at an estimated cost of 6/9 each, but any competitor whose tender is in excess of that figure will start off with a handicap to the extent of that excess.

Presumably the promoter is assuming that breeders, like other business men, will base their tenders on the actual ascertained cost of production, and so the quotations he receives will bear a definite relation to the intrinsic value of the birds, whatever their breed. Such an assumption, however, runs completely counter to the original object for which the test has been promoted—namely, to ascertain definitely the returns which may be expected from the various breeds and reliable information about the cost of production. If the promoter, as he states, has been unable up to now to get reliable information about the running costs of adult stock on a commercial farm, surely he cannot expect other people to supply him with accurate figures about the cost of rearing to maturity, especially as such figures are very largely influenced by the profit or loss (according to the breed) on the surplus cockerels. That a great difference of opinion actually does exist has been recently demonstrated in the correspondence columns of " Eggs."

Furthermore, in actual practice, pedigree and not cost of production has been, and always will be, the decisive factor in determining the market value of a pullet.

In conclusion, I should like to say that, as I am not a competitor in the test, I have no personal axe to grind, nor do I want to crab a scheme which may prove of great value to the poultry industry in general. But unless the promoter clearly states that his results are incomplete owing to the absence of scientific data as to the varying costs of raising to maturity amongst the different breeds, we shall have a repetition of the dogmatic assertion of the superiority of one breed over another which was so marked on the case of a recent well-known test organised by the " Daily Mail," when all the people in my neighbourhood were emphatic that White Wyandottes, which won the Test, must be the best breed for egg production, oblivious of the fact that a pen of the same breed was also bottom of the Test.

Yours sincerely,

A. H. CAPPER.

SOFT-SHELLED OR SHELL-LESS EGGS.

Dear Sir,—I should like to endorse Mr. G. Tucker's experience regarding soft-shelled or shell-less eggs. For the last twelve years the scattering of a pound or two of shell among the litter has been resorted to at the first appearance of soft-shell or egg-eating, and has met with immediate success in every case.

My birds have limestone grit constantly before them, but a reserve store of oyster shell is called upon for scattering broadcast at the first indication of the trouble.

Yours faithfully,

MARY ENCOMBE.

APPLICANTS FOR MEMBERSHIP.

Greenwood, W., " Pastorale," Carnforth.
Sims, C. E. F., Heatherlands P. Farm, Riccall Common, Selby, Yorks.
Heron, John H., Hook Road Mill, Goole, Yorks.
Hunt, Miss A. G., Boreatton Farm Cottage, Baschurch, Salop.
Hofer, H. F., Parc-An-Creet, St. Ives, Cornwall.
Davies, W. T., Waun YCoed House, Waungron Road, Treboeth, Landore, S. Wales.
May, Com. A. S., 3, Leeside Crescent, Golders Green, London, N.W.11.
Nash, C., Scutes Farm, St. Helens, Hastings.
Parsons, Harry, Windmill Cottage, Froxfield, Nr. Petersfield, Hants.
Winward, Robert, Martins Farm, Broadhead, Edgworth, Nr. Bolton, Lancs.
Townson, F. E., Salisbury P. Farm, Sandpit Lane, St. Albans.
James, D. R., Trelech, Carmarthenshire, S. Wales.
Bowes, Miss B., Three Yews, Ashill, Ilminster.
Whitaker, John, Cherry Tree Farm, Stone Chair, Shelf, Nr. Halifax.
Yates, A., 40, High Street, Little Lever, Nr. Bolton.
Kirkby, Thos., Tylers Green, Hayward's Heath.
Lane, Mrs. A., The Belt, South Stainley, Harrogate.
O'Hara, James, 135, Bamford Road, Heywood, Lancs.
Snewing, G., The Croft, Raby Drive, Bromborough, Nr. Birkenhead.

Food Purchase Scheme.

ALL PRICES ARE SUBJECT TO MARKET FLUCTUATIONS.

May we state that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned n these columns, but the undermentioned are special items. Price list will be despatched to any member, if application is made to this office.

Referring to the odd cwts., which are now supplied under the Food Scheme, 9d. per cwt. extra will e charged on the prices already shown. This is to cover the extra expenses and handling which the ne cwt. business involves. If the total order for one firm amounts to 5 cwts. and over, this extra charge will not be made.

Will all members ordering under this scheme kindly note that orders received by second post on aturdays cannot be dealt with until the following Monday.

ll orders accompanied by cheque should be sent to Mr. Tom Newman, Secretary, Rudgwick, Sussex.

SPECIAL OFFERS.

FISH MEAL: F.O.R. GRIMSBY and TYNEMOUTH—5 cwts. nd upwards, at 16/9 per cwt.; under 5 cwt. orders at 17/6 per wt.

UNEXTRACTED DRIED YEAST: F.O.R. GRIMSBY and ULL—At 20/3 per cwt. for 5 cwt. orders; 21/- for orders under cwts.

ISH MEAL, with the following analysis:—

OIL ... ... 4.5 per cent.
ALBUMINOIDS ... ... 55.60 per cent.
PHOSPHATES ... ... 16.18 per cent.

Prices F.O.R. LONDON

Under 5 cwts. ... ... 18/9 per cwt.
5 cwts. orders and upwards ... 17/9 per cwt.

ISH MEAL	17/9	F.O.R. SWANSEA.
" "	16/9	F.O.R. MIDDLESBRO'.
MAIZE GRITS	10/6	F.O.R. LONDON.
" "	10/6	F.O.R. IPSWICH.
MAIZE GERM MEAL	8/3	F.O.R. LONDON.
" " "	8/3	F.O.R. IPSWICH.
S. G. OATS	12/6	F.O.R. SUSSEX.
MEAT AND BONE MEAL	15/3	Carriage Paid.
MEAT MEAL	15/9	Carriage Paid.
ALFALFA	11/9	F.O.R. LONDON.
"	11/3	F.O.R. BRISTOL.
BONE FLOUR	9/6	F.O.R. LONDON.

LIMESTONE GRIT: F.O.R. BRADFORD (three grades)—Poultry, Medium. Chicken. In minimum orders of 5 cwts. at 2/6 per cwt.; single cwt. included in order for other goods from Bradford, at 2/9 per cwt.

F.O.R. BRADFORD—Mixed Corn 13/-, S.G. Oats 14/-, Meat Meal 18/-.

SUSSEX GROUND OATS at 12/6 per cwt. F.O.R. Birmingham.

FISH MEAL:—

OIL ... ... under 4 per cent.
SALT ... ... under 3 per cent.
ALBUMINOIDS ... 55/60 per cent.
PHOSPHATES ... 15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—

ALBUMINOIDS ... 35/40 per cent.
FATS ... ... 10/15 per cent.
PHOSPHATES ... 25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—

ALBUMINOIDS ... 57/62 per cent.
FATS ... ... 10/15 per cent. at 15/6 per cwt.

F.O.R. MIDDLESBROUGH.

	MASHES					CHICK FEED		MIXED	S G.	FISH	MEAT	MEAT & BONE
	Layers	Growers	Breeders	Chick	Fattening	No. 1	No. 2	CORN	OATS	MEAL	MEAL	MEAL
Liverpool	11/-	11/-	12/-	12/-	12/-	17/-	15/-	12/9	15/-	20/3	19/-	15/-
London	11/9	11/9	12/9	13/-	12/9	17/9	16/3	14/6	13/6	17/6	...	13/6
London	11/-	11/-	12/-	12/3	11/9	17/6	16/-	...	...	...	...	...
Leith	10/3	10/3	10/9	11/3	11/3	16/3	15/9	11/9	13/-	18/9	...	13/3
Leicester	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	13/6	21/-	...	13/9
King's Lynn	11/3	11/3	11/6	12/6	11/9	17/3	15/6	13/6	15/-	18/9	...	13/9
Belfast	12/9	12/3	13/-	14/-	...	18/-	16/9	...	13/3	20/-	15/-	12/9
Bristol	11/3	11/3	12/-	12/9	12/-	17/9	15/9	14/-	13/3	17/9	..	12/9
Southampton	11/6	11/6	12/6	12/6	11/9	17/6	15/6	12/-	14/3	19/6	..	14/3
Plymouth	12/-	14/-	12/6	14/3	11/9	19/-	16/9	...	15/9	20/9	...	16/9
Aberdeen	11/6	11/6	13/-	13/-	13/-	15/6	14/3	...	12/6	17/6	...	12/6
Harrogate	11/6	11/6	12/3	12/9	12/9	17/6	15/3	...	13/6	20/-	...	13/6
Glasgow	12/-	12/-	12/-	13/-	12/-	17/-	15/-	12/-	13/6	19/3	17/3	15/3
Staffs	10/9	10/9	11/3	11/3	11/3	17/6	15/-	13/9	13/6	19/-	...	13/3
Kettering	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	13/6	21/-	...	13/9
Bradford	11/6	11/6	12/3	12/9	12/3	17/6	15/9	...	...	17/6	...	14/-
Birmingham and Wolverhampton	10/9	10/9	11/6	11/6	11/-	16/9	14/6	11/9	12/6	18/9	...	13/9
Greenock	11/-	11/6	12/-	12/9	12/9	17/9	15/9	...	14/9	20/3	15/6	15/-
Tewkesbury	11/3	11/3	12/-	12/9	12/-	18/-	15/-	11/9	13/-	20/3	...	15/-
Bolton	11/-	11/3	12/3	12/3	12/-	17/-	15/3	13/-	13/6	20/3	...	14/-
Middlesbrough	11/-	11/3	12/3	12/-	12/-	17/3	16/3	...	13/6	16/9	...	12/9
Mid Sussex	11/3	11/-	11/6	12/3	11/6	18/3	16/3	13/-	12/6	19/6	17/6	17/-
Sussex (East)	11/6	11/9	12/6	12/-	12/3	17/6	15/-	...	12/6	21/-	...	14/-
Sussex	11/6	11/6	12/6	12/6	12/6	18/-	14/9	13/-	12/9	19/6	...	18/-
Essex	11/-	11/-	11/9	14/3	...	17/9	15/9	...	13/6	...	...	...
Birkenhead	10/9	11/3	11/9	12/3	12/-	17/-	15/-	13/3	12/6	19/6	..	13/9
Isle of Wight	11/9	12/-	13/6	15/-	...	18/6	17/6	12/6	16/-	21/-	...	15/-

It would be of very great assistance if members when ordering would always **STATE STATION** they wish goods despatched to, also their **NEAREST DEPOT.**

NORTHERN UTILITY POULTRY SOCIETY LAYING COMPETITION, 1925-26.

SIXTH REPORT (March 21st to April 17th, 1926).

This period opened with the weather very cold, frost and snow being frequent during the first week, after which it was mainly fine but cold, winds, happily, not very strong.

The splendid health record has been maintained, no competitor having suffered from anything that medicine could cure. Two birds have died, No. 383 being found dead on dropping board; No. 110 became ill after being broody, and died. Very little broodiness has to be recorded.

The yield of eggs has been extraordinary, with practically all competitors in full lay. This was only to be expected, but the six months' general average will, I think, constitute a record for the Northern competitions. Only one bird has failed to lay—Cross-bred No. 340—during the six months.

Duck Section.—These competitors have also laid well this month, and show a clean bill of health. No. 12 has died from ovary trouble.

EGG PRODUCTION OF LEADING PENS.

Figures are eggs for 6th period and total eggs to date respectively:—

Section No. 1—Championship.—Messrs. Longworth Bros. (W.L.), 242, 948; Leslie Williams (W.W.), 208, 927.

Section No. 2—White Leghorns.—Robert H. Fryers, 113, 557; F. C. Tomlinson, 104, 500; Capt. C. M. Leatham, 105, 485; William Dugdale, 115, 472.

Section No. 3—White Wyandottes.—Bolton and Gardner, 102, 542; R. H. Aspden, 92, 511; Mrs. J. H. Hill, 94, 504; Arthur White, 111, 488.

Section No. 4—Any Other Variety (Non-Sitting).—K. A. Crawford (W. La B.), 103, 456; Robert A. Fawsett (B.L.), 109, 407; Arthur White (B.L.), 98, 387; J. Ashworth (B.L.), 101, 338.

Section No. 5—Any Other Variety (Sitting).—E. A. Tingle and Son (R.I.R.), 108, 551; Gettern Model Poultry Farm (B.R.), 117, 541; Gilbert A. Leonard (B.R.), 95, 489; Harold Turner (R.I.R.), 114, 488.

Section No. 6—Small Breeders.—Mrs. Clara Egar, 113, 407.

Section No. 7—Cross-breds.—Mrs. Clara Egar, 102, 394.

Section No. 8—Two Birds.—Mrs. E. McKeown (W.W.), 47, 217; Misses Leason (W.W.), 44, 188; Andrew Vasey (W.L.), 45, 171; Henry Purves (W.W.), 41, 174.

Section No. 9—Single Birds.—R. A. and A. M. Johnson (W.W.), 22, 116; Crossgar Pedigree U.P. Farm (R.I.R.), 20, 110; Mrs. R. K. Tallis (W.W.), 22, 99; W. B. Grimshaw (W.L.), 23, 102.

Section No. 10—Local Section.—Ernest Jackson (W.W.), 70, 372; Joseph Trickett (W.L.), 63, 330.

Section No. 11—Ducks.—G. H. H. Simmons (K.C.), 117, 325; Wilson Beattie (K.C.), 130, 303; R. A. and A. M. Johnson (W.R.), 120, 279; Fred Gardner (A.R.), 117, 260.

Section No. 12—Single Ducks.—G. H. H. Simmons (K.C.), 27, 109; R. A. and A. M. Johnson (K.C.), 26, 82; Mr. and Miss Streatfield (K.C.), 27, 75; A. Denby Wilkinson (K.C.), 26, 68.

DORSET COUNTY EGG-LAYING TEST.

POULTRY INSTRUCTOR'S REPORT FOR SEVENTH MONTH.

1st April to 28th April, 1926.

Weather improving with the season of the year. During the 28 days of this period there has been 16 days fine with sun, 8 days rain, 4 days frost and cold winds.

296 birds still in good health. No. 10 and 23 under treatment. Bird 268, Brown Leghorn, died suddenly on 22nd April, 6.30 p.m., this bird was sent to the Ministry of Agriculture's Laboratory, Weybridge, for examination. Cause of death, "ruptured liver." A copy of report has been sent to the owner, and the reserve bird now takes its place. No moulting, but broodiness has been on the increase this period.

5,795 eggs have been laid and marketed. Seventh month highest daily collection, 10th April, 229 eggs.

Special grade, 111, 1st grade, 70, 2nd grade 46; non-scoring, 2.

White Leghorn 102 still laying, now 111 special eggs in last 112 days; she ties with her sister No. 101 for monthly ribbon, but loses it to 101, as this bird scored more points in first two periods (see rule 3). A. TURNER, Poultry Instructor.

LEADING PENS IN EACH SECTION TO END OF 7th PERIOD.

Section 1.—N. V. Fowler, Bridport (W.W.), 5057 pts.; Mrs. Clark, Steepleton (W.W.), 4543; Capt. Turton, Ensbury (W.W.), 4497; Capt. Turton, Ensbury (R.I.R.), 4441.

Section 2.—B. P. Leschallas, Charminster (W.L.), 4931 pts.; Capt. Turton, Ensbury (W.L.), 4852; Mrs. Trehane, Hampreston (W.L.), 4730; C. A. Streatfield, Beaminster (W.L.). 4352.

Section 3.—H. Barnes, Hedge End, Blandford (W.W.), 4643; O. J. Collis, Buckland Newton (W.W.), 4543; H. J. Northover, Buckland Ripers (L.S.), 4406; H. E. Wilds, Marnhull (L.S.), 4377.

Section 4.—Miss Oddy, Milborne (W.L.), 4019; W. M. Millard, Twyford (W.L.), 3934; R. Runyard, West Lulworth (W.L.), 3657; Mrs. Roberts, Silton, Bourton (W.L.), 3511.

"DAILY MAIL" EGG LAYING TEST, 1925-26.

Report for Seventh Month—5th April to 2nd May, 1926.

Contrary to expectations based on experience in previous tests the records for the seventh month were better than those of the 6th, the average of the flock being 17.02 eggs per bird as against 16.89 for the latter period. This increase was entirely due to the improved production of the pure-bred hens, as both the first cross hens and pullets showed a slight falling off.

Broodiness was more in evidence, 111 birds in all requirin treatment. It was most pronounced amongst the first cros pullets, and while the cross-bred hens were not so seriously affected the pure-bred hens were even less so.

In the pure-bred hen sections the best scores for the mont were 141 first-grade eggs laid by Mr. Warwick Rogers' pen, an 140 by Mr. A. V. Wallis' pen, both White Leghorns. The highes score in the First Cross Hen Section was 162 standard eggs lai by Mr. J. M. Abbott's White Wyandottes x White Leghorns, an in the Pullet Section 156 eggs were scored by Mrs. E. N. Harr son's Rhode Islands Red x Ancona.

The most important change in the Leading Pens was th overtaking of the Prince of Wales' pen of Australorp x Rhod Island Red which have held the lead since the outset, by M A. V. Wallis' Rhode Island Red x White Leghorns. With th former's handicap of two dead birds during the last three month this was only to be expected, and for the remaining five birds t have held their own so long under such adverse conditions spea volumes for their laying capabilities.

Messrs. R. A. and A. M. Johnsons' pen moved up into firs place in the White Leghorn Section, and Messrs. H. Sutton an Sons' pen of White Leghorn x White Wyandotte did the sam amongst the first-cross hens.

The proportion of first-grade eggs was even better than las month, and reached 97.34 per cent. The general health of th flock continued to be good.

Figures are Eggs and Points respectively.

EGG PRODUCTION OF LEADING PENS.

Section 1. Leghorns. Any Variety (Seven Hens).—R. A. an M. Johnson, Chalford, Glos, 648, 624; Balsham Manor Farm, Cambridge, 703, 602; J. Potts, Nunthorpe, 582, 565; Walter Crabtre Clitheroe, 549, 549.

Section 2. Wyandottes. Any Variety (Seven Hens).—W. an T. Salt, Enderby, 640, 625; A. Hughes, Malpas, 597, 584; A. Speirs Alexander, Norwich, 583, 581; H. D. Barley, Birminghar 580, 573.

Section 3. Rhode Island Reds or Light Sussex (Seven Hens). B. A. Wolryche-Whitmore, Stamford, 590, 584; G. B. Metcalf Lechlade, 566, 527; F. R. Welch, Bewdley, 538, 516; A. A. Plimpto Beverley, 521, 515.

Section 4. Any Other Breed (Seven Hens).—Wm. Hamnet Blackpool, 555, 552; A. Mansell, Oxon, 491, 485; Capt. H. C. Macke zie, Herne Bay, 460, 457; P. Mills, Bishop's Castle, Salop, 457, 455

Section 5. First Cross Hens competed in "Daily Mail" Tes 1924-25 (Seven Hens).—H. Sutton and Sons, Preston, 678, 670; E. White, Market Drayton, Salop, 681, 662; Warwick Rogers, Ma ket Drayton, Salop, 657, 644; Sydney Smith, Clifton, Nottinghar 606, 605.

Section 6. Any First Cross (Seven Pullets).—Albert V. Walli Clanfield, Oxon, 827, 808; H.R.H. The Prince of Wales, Duchy Cornwall Farm, 789, 785; A. Mansell, Thame, Oxon, 898, 771; Mr H. Burkinshaw, Binbrooke, 797, 762.

GLAMORGAN AGRICULTURAL COMMITTEE COUNTY EGG-LAYING TRIALS, 1925-26.

REPORT FOR SEVENTH PERIOD.

Heavy Breeds.—J. Joshua, Tondu (R.I.R.), 2304 pts.; A. Davies, Morriston (W.W.), 1989; R. J. Evans, Abertridwr (R.I.R 1981; Mrs. Jenner, Wenvoe (W.W.), 1958.

Light Breeds.—Howell & Phillips, Barry (W.L.), 2960 pts.; D. Thomas, Pontardawe (B.L.), 2209; D. Hopkins, Port Talbot (W.L 2180; A. J. Jenkins, Barry (W.L.), 2141.

Single Birds.—Heavy Breeds.—G. Haylings, Ynysybwl (W.W 762 pts.; G. A. Monk, Ynysybwl (W.W.), 749.

Single Birds—Light Breeds—G. A. Monk (W.L.), 507 pts.; T. Lewis, Pontardawe (W.L.), 412.

Dry mash birds laid 1,193 eggs during this period.

Wet mash birds laid 1,037 eggs during this period.

DEATH OF SIR STEWART STOCKMAN.

Our readers will hear with considerable regret of th sudden death of Sir Stewart Stockman, which too place on Wednesday, June 2nd.

Sir Stewart, who was Chief Veterinary Officer the Ministry of Agriculture, was well-known to th majority of those engaged in the Poultry Industry this country. Under his direction investigations Poultry Diseases were carried out at the Ministry Agriculture's Veterinary Laboratories at Weybridg Surrey.

Sir Stewart was an eminent bacteriologist, and at th meeting of the National Poultry Parliament at Harr gate last year he spoke on Poultry Diseases—mo particularly roup.

The serious outbreak of Foot and Mouth Disease all parts of the country had, however, during the la three years engaged his more special attention.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 4th JUNE, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is sparingly offered, but generally meets a fairly quiet demand, and prices are lower on the week at some centres, the average quotation being 13s. 7d. per cwt., as compared with 13s. 11d. a week ago. Imported wheat experiences a quiet trade at easier rates, No. 1 Manitoba averaging 14s. 6d. per cwt. Demand for feeding barley is dull, and slight reductions in price are recorded at most markets. English oats are in limited supply, and recent quotations are maintained, while foreign are occasionally quoted at slightly lower rates. Only a slow demand is reported for maize, and prices are again easier, Argentine averaging 7s. 1d. per cwt., a reduction of 3d. per cwt. on the week.

Milling offals are generally in little request, and both bran and coarse middlings are cheaper at all markets, except Hull. British bran averages about £6, and coarse middlings £7 per ton, these prices being 5s. and 4s. per ton respectively less than in the previous week. A slow trade is passing in meals, maize products being quoted at lower rates. Oilcakes generally attract little attention, but recent quotations are maintained for both linseed and cottonseed cake, except at Liverpool, where English-made linseed cake is reduced 5s. per ton.

MILLERS' OFFALS.—Bran (British): Bristol, £6 10s; Hull, £5 12s; Liverpool, £6 5s; London, £5 15s. Broad Bran: Hull, £7 2s; London, £7. Middlings—Fine (Imported): London, £7 17s: Coarse (British): Bristol, £7 7s; Hull, £7 5s; Liverpool, £7; London, £6 10s. Pollards (Imported): Bristol, £6; Hull, £5 10s; Liverpool, £5 7s; London, £6. Rice Bran: Bristol, £6 10s; Liverpool, £6 10s; London, £6. MEAL.—Barley Meal: Bristol, £9 10s; Hull, £9 13s; London, £10 5s. Maize Meal: Bristol, £9; Hull, £8 2s; Liverpool, £8 12s; London, £8 15s. Maize Meal (S. African): Bristol, £8; Hull, £8. Liverpool, £7 15s; London, £8. Maize Germ Meal: Hull, £7 15s; London, £7 10s. Maize Gluten Feed: Bristol, £9 15s; London, £9 2s. Maize Cooked Flake. Hull, £10 5s; Liverpool, £10 5s; London, £10 5s. Locust Bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9: London, £9 5s. Bean Meal: Bristol, £13; Hull, £11 17s; London, £12 5s. Fish Meal: Bristol, £20 10s; Hull, £18 10s; Liverpool, £18 10s; London, £18.

EGGS AND DEAD POULTRY.

Eggs continue to weaken in price, but transactions are slow. Only a moderate enquiry exists for dead poultry, and some classes are the turn cheaper.

Week-end Prices—Eggs (per 120): British, 12s 0d; Irish (extra selected), 11s 9d; Irish (selected), 11s 0d; Danish (18 lbs.), 14s 3d; Danish (15½—16 lb.), 12s 0d; Dutch, brown, 12s 9d; Dutch, mixed, 11s 9d; French (brown 18 lb.), 13s 3d; French (Normandy), 11s 3d; French (Brittany), 10s 0d; Belgian, 11s 3d; Italian, 11s 6d.

Dead Poultry (per lb.): Fowls—Surrey, 2s 4d, 1s 10d; Irish, 1s 6d, 1s 4d; Others, 1s 10d, 1s 7d. Ducks, 1s 11d, 1s 5d. Geese, 1s 4d, 1s 2d.

EGGS.

Per doz.—Ashford: First, 1s 3d; Second, 1s 1½d. Birmingham: First, 1s 2½d; Second, 1s 1¾d. Bridgwater: First, 1s 2d; Second, 1s 0½d. Chelmsford: First, 1s 4¾d; Second, 1s 3½d. Colchester: First, 1s 3½d; Second, 1s 2½d. Doncaster: First, 1s 4d; Second, 1s 3d. Dorchester: First, 1s 3¼d; Second, 1s 2½d. Exeter: First, 1s 0d; Second, 11d. Hereford: First, 1s 0d. King's Lynn: First, 1s 1d: Second, 11d. Llandilo: First, 1s 0d. Mold: First, 1s 0d; Second, 11d. Newport (Mon.): First, 1s 2d: Second, 1s 1d. Norwich: First, 1s 3½d. Oswestry: First, 1s 0d. Penzance: First, 1s 1d; Second, 1s 0d. Saffron Walden: First, 1s 4½d: Second, 1s 1½d. St. Ives (Hunts): First, 1s 3½d; Second, 1s 1½d. Salisbury: First, 1s 2½d: Second, 1s 2d. Skipton: First, 1s 3d. Swindon: First, 1s 2d: Second, 1s 1d. Truro: First, 1s 1d. Welshpool: First, 1s 2d: Second, 1s 1d. *Carlisle: First, 1s 2d *Derby: First, 1s 4d. *Ipswich: First, 1s 5d; Second, 1s 2d. *Lincoln: First, 1s 3d. *Shrewsbury: First, 1s 1d; Second, 1s 0d. *York: First, 1s 5d; Second, 1s 4d.

FOWLS.

Per lb.—Birmingham: First, 1s 8d; Second, 10½d. Doncaster: First, †5s 6d: Second, †5s 0d. Exeter: First, 1s 7d: Second, 1s 4d Hereford: First, 1s 8d. Llandilo: First, 2s 2d.; Second, 1s 3d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First, 1s 7d. Welshpool: First, 1s 8d: Second, 1s 6d. *Derby: First, †6s 0d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 2s 0d; Second, 1s 9d. *York: Second, †4s 0d.

DUCKS.

Per lb.—Birmingham: First, 1s 9d; Second, 1s 6d. Exeter: First, 1s 6d; Second, 1s 3d. Hereford: First, 1s 8d. Llandilo: First, 2s 2d; Second, 1s 6d. Welshpool: First, 1s 9d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, June 9th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street London, S.E.16. Telephone: HOP 894.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

BATH ROUP CASE—LEMON v. POLLARD.

We understand from Messrs. A. E. Hamlin and Co. (Hon. Solicitors to the S.P.B.A.) that an appeal has been lodged against the decision of the judge in the Bath County Court case, in which the plaintiff was ordered to pay £154 12s. and costs to defendant.

As Messrs. Hamlin point out, the case is of far-reaching importance to poultry-keepers. It is a case affecting the liability of the vendors of fowls for deaths caused by roup and other causes after delivery of the birds.

PRESTON AND DISTRICT UTILITY POULTRY SOCIETY TEST.
SIXTH MONTH.

Figures are eggs and points respectively:—

Section 1.—Light Breeds.—P. Williamson (W.L.), 315, 1845: R. Beesley (W L.). 268, 1772; F. C. Tomlinson (B.L.), 258, 1597; C. Morey (W.L.), 292, 1512.

Section 2.—White Wyandottes.—H. Sutton and Sons, 355, 2190: G. H. L. Armstrong, 299, 1866; J. T. Finn, 296, 1699; J. Rainford, 261 1680

Section 3—R.I.R. and A.O.V. Heavy.—R. Moon and Son (R.I.R.), 324, 2117; G. Cobham (R.I.R.), 326, 2034; J. Basnett (R.I.R.), 330, 1920; H Booth (R.I.R.), 290, 1855.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. Rhode Island Reds (Boucher). Eggs, Stock Cockerels and Pullets. List free. Satisfaction insisted on.

Free range stock. Fertile Sittings:—R.I.R., 4s. 6d.; Australorps x R.I.R., 5s. 6d.; Indian Game, 7s. 6d. per 15, c.p., u.n.r.—Wortley, The Wilderness, Fransham, Norfolk.

White Guinea Fowl Eggs, 7s. dozen; 15, unreplaced.—Mrs. Rees, New House Farm, Peterstone, Wentloog, Mon.

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FOR SALE.

100 CHICKS, 55s.

White Leghorns, Tom Barron. **Special quotations for quantities.—Capt. H. Oscar Perkins, Tendring, Clacton.**

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W. Leghorn x W. Wyandotte.

Three winter months.

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Eggs from parent pen of above, 10s. 6d. per dozen. No chicks for one month. Also sittings and chicks R.I. Reds (Sandhills-Golden, Boucher), and W. Wyandottes (Sandhills' large eggs).—J. A. Brawn, Sandhills Poultry Farm, Shire, Oak Hill, near Walsall, Staffs.

DERRINGSTONE POULTRY FARM.

RHODE ISLAND REDS, LIGHT SUSSEX, WHITE, BROWN, & BLACK LEGHORNS.

SITTINGS FROM 5/- PER DOZEN.

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Orders booked for Ready-to-Lay Pullets.—P. F. Gleed, Derringstone Poultry Farm, Barham, near Canterbury.

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Live delivery guaranteed. All Eggs and Chickens guaranteed from our own flock of nearly 5,000 selected birds on exposed grass runs. You cannot obtain better value at any price. We have hundreds of regular customers. Will you become one Send for free Illustrated Catalogue. Special reductions for large orders.

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Boxes free, carriage paid up to London, aerial travel two hours. Pure-bred White Leghorn, White Wyandotte, Black Bresse, Salmon Faverolles. Catalogue free.—Etablissements, "Chanteclair," Chaville (S et O), near Paris (France).

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26s. per 150. £8 per 1,000. Chicks returned carriage paid. — "Little Hadlow" Poultry Farm, Hadlow Down, Sussex.

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FOR SALE.

Guaranteed Day-Old Pullets; Leghorn-Rock, 16s. dozen; Sowerby, winner "Daily Mail" First-Class Test.—Cuxwold Poultry Farm, Caistor, Lincs.

Faverolle-Sussex, March hatched Pullets, pure first cross; very healthy stock; 10s. each.—Peirson, Woodgate, Beckley, Sussex.

R.I.R. and W. Leghorn Pullets; three months, 6s. 6d.; four months, 9s. All on free range.—Bourne, Mundford, Norfolk.

Black Leghorn Pullets, 15s. and 17s. 6d., from our medal winning strain.—Further particulars on application to Thomson, Penypylle, Holywell, Flints.

Thirty White Leghorns, Rodwell-Barron, hatched April, 1925; laying; room wanted; 7s each; approval.—H. Helm, Hade Edge, Holmfirth, Yorks.

Well-bred Light Sussex January hatched Pullets and Cockerels, 10s. each.—Rectory, Stoke-Climsland, Cornwall.

ST. OSYTH'S PRIORY POULTRY FARM, Essex. W. Leghorn and L. Sussex Pullets; three months old pullets; ready now and onwards; 5s. to 10s. each, according to age and record. Also Stock Cockerels.

RHODE ISLAND (Boucher).

WHITE WYANDOTTES (T. Barron).

WHITE LEGHORNS (Allen Bros.).

Owing to absence abroad in the coming autumn and winter, I am obliged to dispose of the whole of my healthy trap-nested stock. Seventy 1925 W.L., 50 1925 R.I., 7s. each; 1926 35 W.L. Pullets, January hatched, 8s. 6d., March hatched, 7s.; April hatched, 5s. (two months). Also Rhode Islands — Full particulars from Rev. R. Pulleine, Ripley Rectory, Harrogate.

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White Wyandottes and Rhode Island Reds.—A. Wilson, Oak Grange, Six Ashes, Bridgnorth, Salop.

BUFF ROCK PULLETS.

Twenty-four Three Months Old, 8s. 6d. each, from 200-egg dams or over. Pullets and Stock Cockerels booked.—W. B. Farrar, Brookroyd, Batley, Yorks.

3-MONTH-OLD PULLETS.

Light Sussex and Rhode Island Red.—Lieut.-Comdr. Kingdon, Springfield, Stockbridge.

1926 R.I.R. PULLETS,

FROM TESTED PARENTS.

Full sisters to my pen now holding second position, Laindon Laying Test, and bred from dams with records 221 to 252, sired by proved cock from dam with winter record of 75 first-grade eggs, by 221—240. Prices 3 to 3½ months, 10s., 4 to 4½ months, 12s. 6d. each. Individually-bred Cockerels from 12s. 6d. Carriage paid. Approval.—Rowland Cooke, Kirbymoorside, York.

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Now Booking for June Delivery onwards. 2-months-old Pullets, 4s. 6d.; 3-months-old Pullets, 5s. 6d.; 4-months-old Pullets, 7s. Carriage paid. Cash with orders, or deposit.—Great Fransham P.F., Fransham, Norfolk.

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Ancona Cock, April, 1925, 15s.; Ancona Cockerels, March, 1926; 4s. each.—Roxburgh, Oaksleigh, Locks Heath, Southampton.

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Genuine Typical Laying Stock, 1925 Pullets, for Breeding Pens, with magnificent cocks, fit for show pen; all sent on approval. Pen of Ten Pullets and Cock, £4 10s., or larger numbers quoted for, of Rothchild's Light Sussex, Cam's White Wyandottes, Barron's White Leghorns, Hunter's Black Leghorns, Schimnel's Barnevelders, Measures' Rhode Island Reds.—Mrs. Porter, Dishley Grange, near Loughborough.

White Wyandotte L2 Hens (1924), from Special Pens; records under 200; 10s. each; over 200, 12s. 6d. Other trap-nested Breeding Hens, 8s. Also Khaki-Campbell Breeding Pens.—Capt. Maxwell, Leiston, Suffolk.

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EGGS

THE OFFICIAL ORGAN OF
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SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH).

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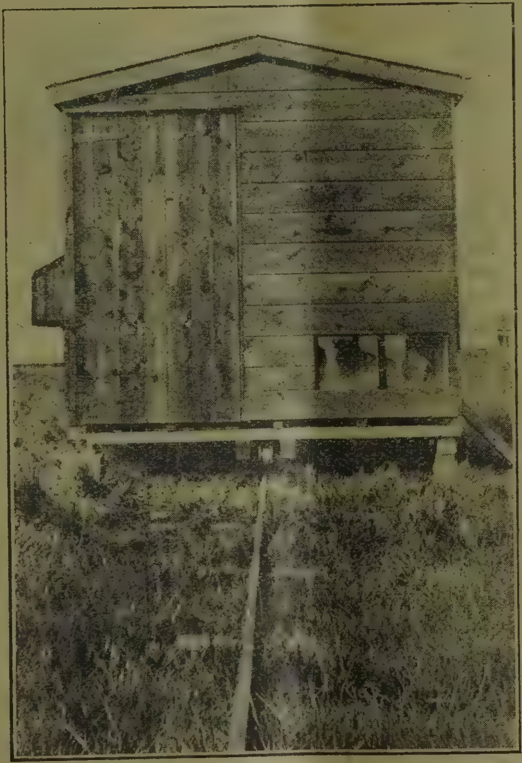

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EGGS

THE OFFICIAL ORGAN OF THE

Scientific Poultry Breeders' Association

WEDNESDAY, JUNE 16th, 1926.

Editorial.

THE REASON WHY.

We have always prided ourselves that whenever a definite statement has been made in these columns a reason for such statement has been forthcoming. Therefore we have been rather nonplussed when one reader writes to suggest that it would be helpful if explanations were given, and another writes, "It is easy to state these things, but can you give a reason?" There is, therefore, no alternative but to explain the reasons for the statements made.

No. 1. Black or White Leghorns are recommended for the Intensive System. Why?

It was suggested at the time this statement was made that a first-cross might be useful when made between a light and a heavy breed, and that Wyandottes and Rhode Island Reds could also be kept successfully intensively, and, although two instances were known where Light Sussex had proved a great success under the system, the breed was not recommended.

Where birds are kept in total confinement, it is agreed that a light active breed would be more suitable for the purpose than a heavy breed, which is likely to put on internal fat. An active breed is less prone to the vicious habits which may arise from close confinement. However, as an outstanding example of the success of heavy breeds under the intensive system, we need only refer to our President, Mrs. Hunter, who has kept her Wyandottes intensively for many years with the greatest success.

No. 2 is rather a funny question. The writer says:—**You say these are not Sussex Ground Oats. Why are they not Sussex Ground?**

Apparently his idea is, that "Sussex" ground means **ground in Sussex.** There would be no particular virtue in that, the writer should understand that a genuine sample is ground by specially-prepared stones, to such a degree of fineness that the husk is hardly perceptible. In the sample he sent the husk was very apparent, it was a very ordinary sample of ground oats.

No. 3. You say that fine flat bone and tight plumage is a characteristic of the layer, but you don't say WHY?

Perhaps we can explain this better if, in the first place, we give our correspondent some idea as to the composition of bone. The following may be taken as an average:—Animal Matter 1/3rd, Phosphate of Lime ½, Carbonate of Lime 1/8th, Other salts 1/24th.

Now he will see what a high percentage of lime there is in bone. Next he should remember that continuous selection for high fecundity results in a much earlier maturity, with the consequence that the lime which should be used by the fowl to make bone is eliminated in the egg, both in the yolk and shell. He will see, then, that if a pullet starts to lay at, say, five and a half months old she has far less chance of "making bone" than one which starts, say, at nine months, so we get the fine bone, which is the characteristic of the layer. As to flat bone, if he compares the shanks of a good and bad layer, he will observe that in the one case it is flat, and in the other full and round. In the case of the non-layer, it is filled out with fat, but all heavy layers draw more or less on their bodily reserves, and the good layer does not accumulate fat as does the poor one.

No. 4. You say if wheat is fed heavily it will cause hens to lay pale-yolked. How is this?

In this case our correspondent is mistaken, we have never said if wheat was fed heavily that pale-yolked eggs would result. If there is a shortage of green food, and wheat was used exclusively as the grain food, pale-yolked eggs would result. The same remark would apply to oats. Maize will give a good-coloured yolk. Our correspondent should be aware that the colour of the yolk is largely determined by the feed, and if food is lacking in colouring matter then the yolk of the egg will be pale. As mentioned so many times in these columns, we were able to produce eggs with perfectly white yolks in the Wellingham experiments.

No. 5. In a recent issue you stated that paring the spurs of an old male, and dubbing, improved fertility. How can this be?

We certainly thought the explanation had been given when the statement was made. As far as the spur was concerned, it was explained by the Italian biologist, Dr. Cannarsa, that the fact that the propagative instinct in an old male was reawakened when the spurs had been removed precluded any doubt as to the existence of relationship between the length of spur and the function of the sexual gland. As to dubbing, it was pointed out that the comb and wattles are the secondary organs, and a dubbed male is not nearly so susceptible to severe climatic conditions as one which is undubbed.

No. 6. In answer to W. Herts you said :—" It is possible, and even probable, that environmental conditions would tend to render sexual development more slow, and the later the birds mature sexually the greater their bodily development." Will you explain?

Our correspondent must forgive us, the explanation is so obvious. If he gives the matter a little thought he will find it himself. Let him consider the subject in relation to the answer given to his third question.

No. 7. You tell us to store eggs for incubation on their sides, other experts advised that they should be stored broad end up. Why do you give this advice?

Because, after examining thousands of eggs, we have found in many cases the head is at the small end of the egg, and the chick is unable to hatch in consequence.

MIDDLESEX AGRICULTURAL EDUCATION COMMITTEE.
COUNTY LAYING TRIAL, 1925-26.
REPORT FOR THE SEVENTH PERIOD—1st to 28th April, 1926.

1. Health.—The general health of the flock continues to be satisfactory, the only sick bird being a case of internal trouble.

Moulting and Broodiness.—Only one pullet has been in moult, but 21 have been broody. These cases of broodiness are not serious, and in the majority of cases have only caused a suspension of laying for eight or ten days. An exception is No. 64 (R.I.R.). This bird has been broody since March 26th.

2. Egg Production.—The total number of eggs laid shows a slight increase over the preceding period, and have now probably reached a maximum. Including the 21 broodies, 142 pullets have produced 2,629 eggs, a daily average of approximately 94. There is, however, the usual slight falling off in size for this time of the year.

52 per cent. of the eggs laid were over 2 ozs. in weight, as against 59 per cent. in the fifth period and 54 per cent. last month.

The highest daily collection was 106 on April 4th, and the lowest 86 on April 18th.

SUMMARY OF POSITIONS TO DATE.

The leading pens in each section to the end of the Seventh Period are (figures are eggs and points respectively):—

Section Ia. (Light Breeds—5 pullets).—Mrs. D. A. Fowler (Anc.), 461, 3489; Miss G. Compton (B.L.), 411, 3129.

Section Ib. (Heavy Breeds—5 pullets).—Sir J. FitzGerald (L.S.), 608, 4589; E. Fownes, Esq. (W.W.), 563, 4037.

Section II. (Poultry Society Teams—5 pullets).—Hounslow, 431, 3343; Tottenham, 419, 3137.

Section IIIa. (Single Birds—Light).—J. N. Williams (W.L.), 132, 951; R. W. Baker (W.L.), 126, 883.

Section IIIb. (Single Birds—Heavy).—F. E. Robinson (W.W.), 123, 916; C. G. May (W.W.), 131, 789.

Best Pullet in Trial to Date.—E. Fownes, Esq. (W.W.), 152, 1335.

THE "SERIAL" LAYING TEST.
FOURTH SESSION, 1925—1926. RESULTS.

Total Egg Production.—The total egg output for the 28 days was 6,437 (an increase of 586 over last month), and giving an average of 18.28 eggs per bird.

Broodiness.—Birds numbered 74, 94, 232, and 233 have passed through the broody coop during this period.

Exhibition (Standard Bred) A.V. Section.—E. Thomas (W. LaB), 473 eggs; Major G. Mundy (L.S.), 416; S. Outhwaite (Ex L.), 409; Mrs. W. W. Butt (B.R.), 311.

White Wyandotte Section (Six Pullets).—R. A. and A. M. Johnson, 668 eggs; Mrs. E. Lilley, 583; Hon. Mrs. D. Coventry, 593; F. C. Tomlinson, 609.

Rhode I. Red Section (Six Pullets).—Mrs. E. Gossage, 630 eggs; Mrs. D. Greenslade, 529; J. W. Potts, 510; Mrs. E. Lilley, 435.

White Leghorn Section (Six Pullets).—F. C. Tomlinson, 599 eggs; Capt. F. C. Collins, 575; R. A. and A. M. Johnson, 577; W. Mason, 513.

Black Leghorn Section (Six Pullets).—Capt. N. Zambra, 484 eggs; F. C. Tomlinson, 424; N. S. Robinson, 368; W. Beattie, 301.

Any Other Variety (Six Pullets).—F. C. Tomlinson (L.S.), 588 eggs; T. Leyson (B.R.), 519; S. H. Brookes (An.), 477; Capt. N. Zambra (Aus.), 441.

Small Breeders' Section (Single Bird). Any Variety Heavy Breed.—Mrs. W. Thompson (B.R.), 148 eggs; Mrs. T. J. McMillan (R.I.R.), 138; Brown and Son (W.W.), 126; Mrs. E. Parker (B.R.), 117.

Small Breeders' Section (Single Birds). Any Variety, Light Breed.—C. Gresley (W.L.), 102 eggs; J. Hart (W.L.), 104; J. Bordman (B.L.), 102; J. Cragg (W.L.), 97.

Modern Poultry Feeding.

By TOM NEWMAN.

CONTINUOUS FEEDING v. ARTIFICIAL LIGHT.

Three years ago I suggested that trough feeding of grain would be the best means of stopping the partial moult of early-hatched pullets. Many of our members adopted the suggestion with highly satisfactory results, and in a large number of cases reported that the system of feeding had resulted in an increased egg yield during the winter months. Now we have the very interesting report of the feeding experiments carried out by the Department of Agriculture in Victoria, which appeared in our issue of May 26th. I am referring to that of **continuously** as against **regularly** fed birds. In the former case the birds had BOTH mash and grain always before them in hoppers ; in the latter, mash was always before them in hoppers, but grain was fed in the litter. Both pens had fresh green food, In the continuously fed birds it was fed whole in a wire basket, with the regularly fed it was given chaffed at midday. Summarising the results we find continuously fed birds consumed 125 lbs. more grain, 12 lbs. less mash, laid 388 more eggs, cost 4d. per bird more to feed, gave 2/3 per head more profit ; this for the four winter months.

For the full twelve months :—Continuously fed birds laid 6,114 eggs, as against 5,671. Total value of eggs laid was £1 4s. 7d., as against £1 1s. 8d.

It will be seen that as the test proceeded the advantage with the continuously fed birds became less pronounced ; in the second four months they only laid 31 more eggs, and in the third period of four months only 24 more than the regularly fed.

There is one very important fact, the extra food consumed was GRAIN.

From the results obtained we gather, then, that during the short winter days the average pullet is not able to consume sufficient food to enable her to produce eggs up to her full capacity, and we shall find this more perfectly demonstrated if we further analyse the figures, and take the first three months instead of the first four. Thus :—

	Continuously Fed.	Regularly Fed.
First Month	337 eggs.	283 eggs.
Second Month ...	405 ,,	191 ,,
Third Month ...	500 ,,	385 ,,
Totals ...	1242 ,,	859 ,,

So that during the three winter months the continuously fed pen laid 383 more eggs than the regularly fed, and in money value £2 1s. worth more. This from 36 pullets in each pen. In the fourth month their lead was only five eggs. There is much repetition here, but I am anxious to emphasise my point. The secret of winter eggs lies (1) in bred-to-lay pullets, hatched at the right time, brought into production in plump condition, and fed to their full capacity during the short winter days. When the days lengthen the additional hours at the mash hopper supplies that surplus above the needs of bodily maintenance which enables the hen to produce eggs freely. Now the point is worth considering as to how far this system of continuous feeding will compare with the use of artificial light. Where an electric plant is not available for the supply of light, can we find partial compensation by continuous feeding, for, after all, artificial light is supplied solely to enable the birds to consume more food so that they may produce more eggs? Which is likely to be the most economical, least likely to detrimentally affect the health of the birds? Much will depend on local conditions, and there is room for investigation and experiment, which I hope may be to some extent undertaken at the S.P.B.A. Experimental Farm next winter. If we disabuse our minds of the idea that there is any fear of overfeeding the layer, and remember that intermittent laying which is so common during the winter months is more often than not due to underfeeding, we shall produce more winter eggs. We are not all of us so fortunately situated that we can feed by artificial light without great labour and inconvenience.

We are approaching a time of the year when eggs tend to become fewer, and an early moult takes place which may often be warded off if one closely observes the birds and adjusts the feeding accordingly. Despite all that has been said against maize feeding during the summer months, I have always fed it from the end of May onwards to heavy producers. It tends to increase the size of eggs when, as often happens, they show signs of becoming smaller at the end of May, and it also assists in bringing them quickly through the moult. Birds which are underfed or which have produced heavily, and so drawn heavily on their bodily reserves just before moulting, which is equivalent to underfeeding, are long in the moult, and take a considerably longer time before they resume production than those which are in good condition. The secret of getting birds through the moult is having them in good condition when they start. I am often asked as to the feeding of moulting hens. If they have been well fed and are in good condition no change is necessary, but if they exhibit signs of hanging in the moult the following will be found an excellent mash :—2 Bran, 2 alfalfa meal, 8 middlings, 3 maize meal, 1 Sussex ground oats, 2 fish meal, ½ linseed meal.

Birds when moulting require plenty of shelter, it is a great mistake to expose them to the blazing hot sun at any time, but when moulting it has a very bad effect upon them. Every effort, too, should be made to supply them with plenty of fresh green food. But the real secret of the quick moult is having the bird in condition to moult, and see that they are not pestered with insect life. Sulphate of iron in the following proportion is

(Continued at Foot of Next Column).

THE YORKSHIRE FEDERATION OF POULTRY SOCIETIES.

The Quarterly Meeting of the Yorkshire Federation of Poultry Societies was held on Saturday, June 5th, at Albion Street, Leeds. Mr. Percy Wainwright was in the chair.

A letter was received from Mr. W. F. Lyddon Cook, of Hammerton Poultry Farm, complaining of loss of pedigree stock by foxes, and asked if the Federation would take the case up on his behalf. Failing a satisfactory reply from the Hunt, Mr. Cook was advised to make a claim himself in the first instance, and if no satisfaction ensued the Council would deal with it. Mr. C. E. Moses spoke corroborating the procedure. Some months ago he stated he had lost by foxes over eighty promising pullets, some of which were on the point of lay. He wrote to the authorities of the local Hunt, and, after waiting patiently some considerable time without results, he mentioned that the matter would be put into the hands of the Yorkshire Federation. He was pleased to say that immediately after he received a cheque for the full amount.

The chairman read a letter from the Secretary of the Wensleydale Agricultural Society asking the Federation to suggest the name of a judge for the poultry section for the forthcoming show at Leyburn. It was agreed to submit the name of Mr. H. Wales (past chairman).

A discussion followed favouring the compiling of a panel of Federation Judges with a special request that support be sought from the many well-known poultry judges resident in the county.

Mr. F. W. Parton agreed to visit, on the Federation's behalf, the district of Reeth, at the request of the Swalesdale Poultry Society.

The Executive's report was presented, which showed useful progress had been made in regard to the proposed propaganda work. It is the desire of the Executive to make known the fact that the Federation is representative of both sides of the poultry industry.

The chairman had great pleasure in submitting the recommendation from the Executive, and that was in electing Mr. F. W. Parton (County Instructor in Poultry-keeping Dept. of Agriculture, Leeds University), first hon. life member, as a mark of esteem for the life-long services to the poultry industry, and particularly the interest taken in Yorkshire to extend the keeping of better class of poultry generally. This was moved by Mr. J. R. Brook, and, in seconding the motion, Mr. Frank Snowden paid a high tribute to Mr. Parton's endeavours since he took up his duties as County Instructor at Leeds University. The motion was carried with acclamation.

Mr. Parton thanked the Council for the honour conferred upon him.

Mr. H. Walker, hon. secretary Federation Laying Test, wrote asking for suggestions from the Council in relation to the 1926-27 Laying Test Schedule. It was agreed that all societies affiliated be invited to send suggestions before June 15th.

The Delegates' report of the National Poultry Council meeting, held at the Midland College, was presented. The points of chief interest being the Stock Poultry Laying Records Scheme, Pooling of Delegates' Expenses, the holding of the Council's meeting at a convenient centre, and suggested increase in the affiliation fee.

A somewhat lengthy discussion followed in relation to the increased affiliation fee from 1d. to 3d. per member. It was resolved that, in view of lack of funds being available for such increases, that the delegates attending the annual meeting of the N.P.C. should strongly oppose any increase at the present moment. It is thought by the Council that before asking societies and federations to give up half the revenue it would be a wiser course to wait for better times. It would greatly help delegates if the balance sheet of the National Poultry Council could be in the hands of those attending the Parliament seven clear days of the event.

Mrs. Clay, M.B.E., and Mr. Frank Snowden were elected representatives to the National Poultry Parliament.

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helpful at times as a tonic, but a well-fed bird should not need it : Dissolve 2 ozs. of powdered sulphate of iron in a quart of water, and add one teaspoonful to every pint of drinking water.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

COCCIDIOSIS.

I shall not apologise for returning once again to this subject, although my readers must be heartily sick of it, but we must keep on pecking away until we find out how we can most successfully combat it.

I am writing now asking for information, and an explanation if possible. Here are two cases:—

(1) A severe outbreak of Coccidiosis occurred on a farm in 1924, causing heavy losses. The trouble occurred again in 1925, the losses were as heavy as those in the previous year. This season everything went well until the last brood, hatched on May 5th, were three weeks old, when another outbreak of Coccidiosis occurred, and the mortality was very high.

(2) A member writes:—

> "We have been having many deaths from Coccidiosis during the last three weeks. We had this disease **slightly** last year in April, but in spite of this reared 700 perfect pullets. This year, in March, in the **same house and same runs**, without any sign of disease, and now in the same house and runs the disease has appeared, and we are losing birds in large numbers. They thrive well for three weeks, and then die off quickly."

How are we to explain this? Why did the early broods escape and the later broods develop the disease? It has been suggested to me the development was due to the hot weather, but I do not think such a theory will hold water, because we were notified of the disease on many farms in the early part of the year when the weather was bitterly cold.

Now if any of our readers can give any explanation as to why the early broods escaped when the later ones developed the disease it would be interesting and instructive.

We, of course, have the theory there may be a "Carrier" hen which laid eggs infected in their passage down the oviduct, but even accepting that we have to suppose this hen, or hens, only laid these eggs late in the season. I must leave it at that, and shall be glad to have the opinion of our readers.

NON-BROODY STRAINS.

The following is an extract from a letter received from one of our members:—

> "I should be so grateful if you would tell me how to cure broodiness. I call it a perfect curse. At the present moment I have fourteen hens and twenty-one last year's pullets out of a total of 260 birds, all broody. I got my R.I. Reds as ten weeks old pullets from ————, who says he specialises in "non-broodiness," and I have never had such a broody lot of birds in my life."

I do not think this proportion of broody birds very excessive at this season of the year, but the point on which I wish to comment is the remark he makes as to the breeder who states that he *specialises* in "non-broodiness."

We have heard a great deal of "non-broody strains," and I must confess that I have not the slightest faith in them. It is on a par with the "280-egg strain" pullet. That is to say, it is quite feasible that a breeder may have a hen of a broody variety, or even two hens which, during their pullet year, will lay heavily, and will not go broody. This constitutes a "non-broody strain."

As a rule it will be found that broodiness is only dormant for the time being, and that these "non-broody" pullets are frequently broody in their second year. Broodiness is inherent. I have known cases where the mating of a male from a non-broody hen to a non-broody female has produced pullets all of which have been broody, and many of them two or three times in their pullet year.

There has been much disappointment in the purchasing of eggs and of day-old chicks from these advertised "non-broody" strains.

It must be admitted that we know very little of the inheritance of broodiness at the present time. One peculiar fact is that the crossing of two non-broody varieties often results in broodiness in the progeny. I have tested this myself with Leghorns and Minorcas. Broodiness did not appear in the parents or grandparents on either side; that is, as far as I can go back, but the crossing resulted in broodiness in the progeny, although there was no reason to doubt that on the Leghorn side no broody element had been introduced, and on the Minorca side we were certain that they had been bred "pure" for generations.

My correspondent is naturally very disappointed that he should get broody stock from a breeder who specialises in "non-broodiness."

The only thing he can do is to breed from those hens which have shown the least symptoms of broodiness, and mate to cockerels from dams similarly bred.

THE PRESERVATION OF EGGS.

The following, taken from "The British Medical Journal," has been sent me by Miss Staniforth.

It is a rather remarkable letter, and one may particularly remark upon the statement that "the egg laid by a healthy hen is bacteriologically speaking sterile, and that its important contents are well protected by the vitelline membrane."

Perhaps some of my readers may care to make the experiment, which is surely most interesting:—

THE PRESERVATION OF EGGS.

Sir,—In your issue of May 8th and 15th last (p. 847) Dr. H. E. Jones claims to have found that an indifferent gas—CO2—is an effective preservative of eggs.

More than a quarter of a century ago I accidentally learned that a remarkable number of persons in Britain—people in various grades of life and belonging to many different religious sects—have constantly practised the habit of collecting the eggs laid during the Good Friday of each year, and putting them aside for use in making their puddings and other sweets at the following Christmas. The nests are carefully explored late on the previous Thursday evening, and any eggs then found are removed "lest they should go bad, and thus haply infect those gathered on the Good Friday." Moreover, each Good Friday egg must be absolutely clean; if at all dirty when taken from the nest it is carefully washed with warm water applied with a soft cloth, and then dried with another soft cloth. The eggs are then stored in any convenient vessel and put aside; an ordinary open hand-basket and a corner of the chest of drawers in the spare bedroom are usually chosen for the purpose, and there the eggs remain until wanted for use.

I obtained a dozen eggs gathered on the previous Good Friday, another dozen on the previous Thursday, and a third gathered during the following week; this was in July, and Easter had fallen early in that year. I at once broke an egg taken from each dozen in turn. Each was quite good and had all the visible appearances of an egg such as might have been laid the same day. The rest were then laid in three separate open cardboard boxes and placed on a table in an unoccupied bedroom, where they were exposed to the full rays of the hot afternoon sun. Thereafter I broke an egg from each dozen once in a week at first, and then once a month, until I came to the end. They were, one and all, quite good, apparently quite fresh, cooking and tasting like fresh eggs. These experiments, varied in many different ways, were continued for some years. And I have by me still a few of these eggs, now over twenty years old, the contents completely dried up, but without any sign of decomposition.

When one comes to think of it there is nothing very surprising in this. The egg laid by a healthy hen is, bacteriologically speaking, sterile, and its important contents are well protected by the vitelline membrane; but if the shell be at all dirty—that is, fouled by the faecal discharges of the parent bird—then dust and the ordinary moisture of the atmosphere soon ensure a penetration of shell and membrane by saprophytic organisms and the germs of liquescent putrefaction speedily follow in their wake.

As I have been warned, the fluid contents of the shell begin to dry up after about the ninth or tenth month, and the drying thence proceeds at an accelerating rate. If the egg has been fertilised it does not respond to incubation after the lapse of three and a half to four months, as is usual; otherwise there is no difference between the fertile and infertile egg.

The alleged immunity of the "Good Friday eggs" is the outstanding feature of a very ancient legend, which appears to be most common among the Celtic peoples, and the pith of it lies in the belief that the thrice-repeated crowing of the cock which aroused St. Peter's remorseful conscience was rewarded by the assurance that each egg laid by its descendants on every ensuing anniversary of the first Good Friday should remain sweet and wholesome for the following twelve months. But there was one condition—the egg must be clean.

I am, etc.,

Hertford, May 25th. C. E. SHELLY.

HOMEOPATHY.

I have been asked by two or three members if the writer in "Eggs" of May 26th will please tell us what the Homeopathic medicines are that he uses in the drinking water to increase the resistance to disease amongst small chicks.

Possibly the writer will kindly send fuller particulars as many of our readers are interested.

THE GAPE WORM.

In the "Times" of Monday, June 7th, I found an interesting article on the Gape Worm in Chickens. Some of the old ideas which we have held on the subject appear to have been illusions, notably with reference to the earth worm as a source of infection. The starling would appear to be a far more serious danger.

The writer states:—

WINTER QUARTERS OF GAPES.

"In autumn and winter few, if any, domestic fowls suffer from gapes, and yet each spring, when chicks hatch out, there may be a serious epidemic of the disease. Where and in what form do the gape worms survive the winter? The earthworm may be dismissed, as it is extremely improbable that either the eggs or the embryos could survive for the necessary number of months, and as no evidence has been obtained in support of the supposition, Ransom, an American worker, has shown that in the United States the turkey is an important agent. Full-grown turkeys harbour gape-worms without being killed by them. They are what is known as tolerant 'carriers' of the plague. Turkey hens on a farm would, therefore, form a permanent reservoir of the parasite, and be able to infect young chickens when they hatched out in spring. Sir Arthur Shipley believes that the turkey is an important agent in this country, and Professor Leiper and his assistants have found gape-worm in the windpipes of a considerable percentage of turkeys killed for the London market. But epidemics of gapes occur in many places where no turkeys are kept, and there must be some other means of winter survival. Mr. E. A. Lewis, of the University College of Wales, recently examined the wild birds of the Aberystwyth area for parasites. His results, published in the Journal of Helminthology for March, showed the presence of the gape-worm in starlings. Professor Leiper encouraged him to pursue his investigations, and he found that 35 per cent. of 482 starlings killed during the months November to February last winter were infected with gape-worm. Since then 18 starlings killed during Eastertide near St. Albans were examined in Professor Leiper's department, and four were found to be infected. In the starling, as in the turkey, only one or two worms were usually found in each bird, so that they did not die from gapes.

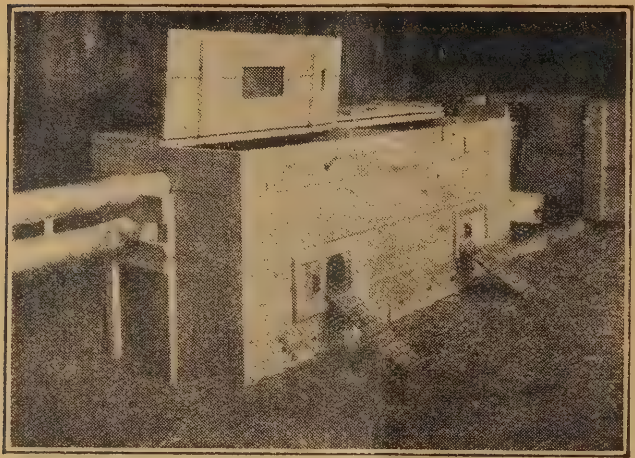
The gape-worm has been found in wild birds, notably in the thrush, by several investigators, but no infection on the scale discovered in the starling has yet been made known. In three-quarters of a century the starling has materially increased its range in Great Britain. Large flocks arrive on the east coasts in autumn, and the permanent residents usually migrate westwards in the same season. In a paper contributed to the Journal of Helminthology for May, Mr. Lewis discusses the relation of the incidence of gapes in fowls to the migrations of starlings, and makes out a very strong case. The gape-worm of the starling, however, has been described as a distinct species. At a scientific meeting of the Zoological Society last week, Professor Leiper said that his department had infected chickens with eggs taken from the starling under carefully controlled conditions, with the result that heavy infection with gapes was produced. The indictment of the starling, therefore, seems complete."

THE INTENSIVE SYSTEM.

Mr. F. W. Bichard, writing from Guernsey, says that as a member of the S.P.B.A. he is very interested in our experimental work with intensively kept birds, and he encloses me a few notes on his system which he has practised successfully on his own farm for the past three years.

With reference to the illustrations, he tells me that the brooder house illustrated in photograph 1 is 30ft.

No. 1.



No. 2.

long, 10ft. wide, 6ft. 6in. high in front, and 5ft. at back. Built throughout of one inch matching. Floor-lights are also in the back of the house.

He states that we will notice in photograph No. 2 that the brooder boxes are only six inches away from the back, and therefore ask: Why the windows? In answer to this he states that in the back of each compartment of brooder boxes there are windows in the centre; thus the light is thrown into the brooders. With a glass window also in the lid he finds no trouble in getting chicks to go in.

As shown in photograph No. 3, the brooder boxes, of which there are sets in the house, divided into two compartments each, are made in half-sections, being joined together with hooks and eyes. The floors of same are 4½ inches from the main floor. In the front and back of the boxes three-quarter inch holes are bored every six inches. This admits ventilation underneath, and it is carried into the brooder boxes in the four corners of the floor by two inch holes, these being protected by rounding the corners off with three-ply wood, raised six inches high, which also avoids the chicks crowding in the corners. There are also sliding glass ventilators in the lids. The boiler is a "Fenlon," and the lamp a German patent. The latter is paraffin, which is turned into a gas, and regulated by a valve tap, shown in the photograph. Whatever height the flame is set at, it will stay at same for weeks at a time. It burns about five pints of oil in 24 hours. There are 18 running feet each of flow and return pipes, with a capacity of 18 gallons of water. Mr. Bichard tells me that there is absolutely no danger from fire with this lamp. The brooder boxes are each 5ft. long and 2ft. wide, and, as already mentioned, divided into two compartments. This apparatus takes up 22 feet of the length of the house. The remaining eight feet is divided off into two compartments, full width of the house, and each week the chicks are transferred from the boxes into them for another week, when they are transferred to the open air.

He mentions that each compartment has a wire run, 2½ft. x 6ft., also held together by hooks and eyes. At the end of the season the whole is removed (except pipes). The boxes, etc., are put under the hose pipe, and thoroughly washed. When dry they are creosoted throughout, and stored away. The house is disinfected with "Cynogas," and then used for other purposes, such as rearing pullets or fattening. Some 1,500 chicks have passed through the house this year, mortality being not one per cent. The photograph shows litter on the floor, but this has not been used for the past two seasons. Hay chaff is put in the boxes weekly, and the floors covered to a depth of one inch with land sand, which is removed weekly. Mr. Bichard says he has never had a case of leg weakness.

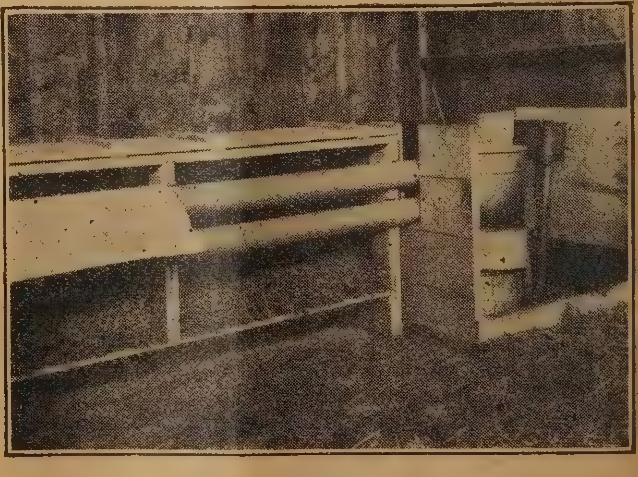
He mentions that his system of rearing is, however, different, he believes, from that adopted by us. For the first fortnight the chickens are reared in hot-air brooders (of their own design), on the grass, and then transferred into the brooder house. January and February hatched chicks stay in until eight weeks old, later hatched, seven weeks.

WEIGHT OF COCKERELS. In 1925 season the sex-linked cross—Brown Leghorn—Light Sussex, averaged 2½lbs. to 3lbs. in 12 to 13 weeks, and fetched five and six shillings each, live weight. This season the sex-linked R.I. Red-Sussex have not done as well, averaging at least ½lb. less. The system of feeding adopted in each case is Chick Seed and Dry Mash up to ten weeks old, remaining two to three weeks wet mash, condensed milk being used. The formulae are his own, based, he tells me, on what he has learnt from my lectures.

Mr. Bichard next touches on diseases. He is pleased to say that he has fortunately not been able to enter into discussion on this subject because they do not trouble them in Guernsey. He concludes:—

"Now, Mr. Newman, in this island, we have the '**Don't care" sort of breeder**, as well as those who take a particular interest in their stock. We have novices in incubation and rearing, who get bad hatches—overheating, etc., and lose chicks with the same causes. Why is it then we do not know B.W.D.?' Why do we not get Coccidiosis also Diphtheric Roup? I suggest that if Incubation and Rearing are contributory causes for these diseases, we should be subject to them here. As they are not, I cannot agree with Mr. Brain that they are due to either. In my humble opinion I believe that climatic conditions will be found to have some effect.

This island is small, and I often wonder whether the **salt** atmosphere has any effect in keeping us immune. If the salt



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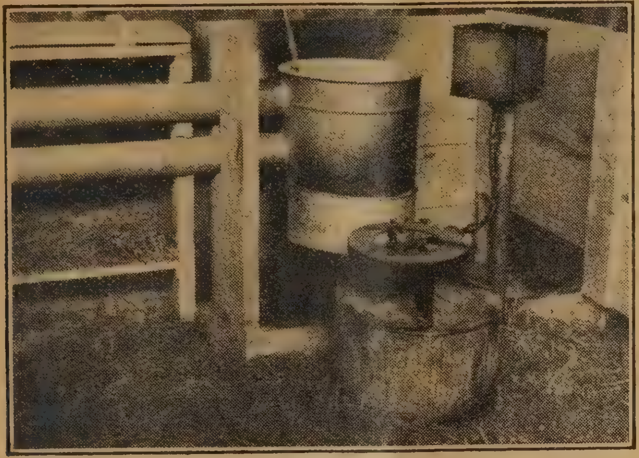


No. 4.

air, which is damp, does assist us, would not some preparation with salt as its basis, assist in destroying the germs of these diseases? Again, salt is a well-known remedy for catarrhal diseases, and may not B.W.D. be associated with catarrhal symptoms of the intestines?"

Well, I am afraid I am unable to enter into the question of disease here, but would only say that B.W.D. is as prevalent in the United States as it is here, and there climatic conditions would vary very considerably.

WYE COLLEGE COUNTIES' LAYING TRIALS, 1925-26.

THE SOUTH-EASTERN AGRICULTURAL COLLEGE, WYE, KENT

These trials consist of 48 pens of five pure-bred pullets per pen. Each pen of birds is housed separately in a double-type house, having five square feet of floor space per bird. Grass runs measuring 17 yards by nine yards are provided for each pen of five birds. The trials are divided into two sections, viz.:—Kent County, 26 pens (130 birds); and Surrey County, 22 pens (110 birds). Each county also has its various breed sub-sections.

Report for Seventh Period—1st April to 28th April, 1926.

This period was marked with adverse weather conditions, as there were heavy rainfalls, with low temperatures and cold winds. Broodiness amongst the birds had also increased, and these combined factors were reflected in a lowering of production, as compared with the previous period. by 154 eggs. The number of eggs laid during the period was 4,517. This makes a total of 25,972 eggs laid up to date.

Health. Light Sussex Pullet No 82 died during the period, and post-mortem examination showed Visceral Gout and Occlusion of the Oviduct as having been the causes of death. White Leghorn Pullet No. 156 is in hospital under treatment. The number of birds which went broody during the period was 48. There were four birds which failed to produce any eggs during the period, two of these not having laid since the commencement of the trials.

SUMMARY. Appended is the summary of positions of the leading pens up to date. Figures are Eggs and Points respectively.

KENT.

White Leghorns.—Dr. Harbord, 610, 4965; Mr. H. S. Godsmark, 553, 4528.

White Wyandottes.—Mr. H. E. Moore, 643, 5298; Messrs. F. and T. Neame, 631, 5134.

R.I.R.—Misses Jones and Atkins, 608, 4800; Mr. R. Freeland, 567, 4402.

Light Sussex.—Mrs. H. C. Cowan, 569, 4656; Mrs. M. Crookes, 563, 4345.

Any Other Variety (Sitting).—Messrs. Campkin Bros. (B.R.), 515, 3926; Mrs. H. Crookes (B.R.), 442, 3654.

SURREY.

White Leghorns.—Mr. J. B. Bantoft, 638, 5148; Lady Lugard, 623, 4968.

White Wyandottes.—Mr. H. J. Willis, 675, 5555; The Burrows Lea Poultry Farm, 643, 4967.

R.I.R.—Mr. A. Kirsch, 617, 4871; Mr. A. Kirsch, 545, 3787.

Light Sussex.—The Burrows Lea Poultry Farm, 600, 4391; Mr. H. W. Homewood, 583, 4352.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing.

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post **by the Editor by virtue of their membership (NOT from Major Saunders).**

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

"Regular Reader" (Berks) writes to say that he cannot obtain gluten meal locally, and he can obtain gluten feed, and he wishes to know whether one could take the place of the other. For some time past I have not recommended gluten feed because some of that imported has caused serious digestive trouble with our poultry. Gluten feed contains a much higher percentage of the offal of the maize than the gluten meal, and unless my correspondent can obtain a really good sample I would not advise him to use it. I would not advise him to use maize germ meal and gluten feed in the same mash. Extracted soya bean meal has a higher protein content than either gluten meal or gluten feed; it is a better protein than either. If my correspondent were to use 5 per cent. soya bean meal and 7½ per cent. meat or fish meal in his mash the combination should be a good one.

"Sex-Linkage" (Watford) wishes to know (1) if he mates a Black Minorca cockerel to R.I. Red hens would he get sex-linkage on the principle of dark shanks on light. If so, would it be possible to use White Leghorns with the Minorca on the same principle. In answer to this question, he would not get sex-linkage as he suggests. I cannot say that any sex-linkage, as far as shank is concerned, is wholly reliable. Take the White Bresse and Light Sussex cross. The sex of the chicks would not be determined at hatching. Most of the chicks at that time hatch with light-coloured legs which darken, and the sex is not clearly defined until they are a fortnight or three weeks old. (2) He has some first cross hens, the result of mating White Wyandotte cockerels to White Leghorn hens. These have proved very good layers, and are very like the Wyandotte in type, with heavy rose combs. If he mates these to a R.I. Red cockerel, does he stand much chance of being able to tell the sex of the chicks when hatched? This would not be reliable. In some few cases it might be possible to do so, but so much would depend on what the individual inherited from the Wyandotte or from the Leghorn.

N. D. D. (Ayrshire). I would rather not have answered your question, as it is a subject of controversy elsewhere, but as I understand it "type" means "shape." Dictionary definitions hardly count, we have to take the accepted definition.

A Rhode Island Red would not be typical if it were not Red, but the standard gives so many points for type and so many for colour; therefore, although I appreciate that you understand type as meaning all the external characteristics which make the bird typical of the breed, and which I agree is the same definition, we must take what is generally understood by the word. If a fancier were to say, "That pullet is good type," I should not contradict him if it were a Wyandotte with a single comb, because I should understand him to mean shape. (2) These are not Sussex ground oats, but they are a very good sample, and would answer the same purpose. (3) Precocious pullets—that is, those which mature sexually before they reach their full bodily development—are usually prolific layers of small eggs. (4) Brown egg is dominant to white, but that does not mean that if you cross your Leghorns with Reds that all the progeny will lay brown eggs; it will depend whether they inherit this character from the sire or dam.

H. H. N. (Essex) writes that a farmer is letting him put some growing stock on his twelve-acre field after the harvest. My correspondent thinks of putting 200 pullets there from September onwards. These will be pullets that he will want to trap-nest, so he thought of housing them in arks with a small central house with, say, six trap-nests. Directly he found a bird in the nest he would remove it to its permanent laying quarters. What he wishes to know is, if by so doing he is likely to put the birds off laying? I am afraid he would put them off laying, because there would very probably be some fighting, and to take a bird which has started laying and put into its permanent laying quarters with what would amount to a total change of food, would almost certainly result in a premature moult. Two hundred birds on twelve acres of wheat, barley and oat stubble would not require any other form of food, and now my correspondent proposes to take them from this and put them on to a totally different method of feeding. It is just possible that they may escape this premature moult, as they would be in splendid condition when removed from the stubble, but personally I think it is most probable that they would moult. More particularly as there would be sure to be some fighting with new birds introduced into the laying house practically every day.

C. N. (Blackburn) asks for an explanation as to what coccidiosis is. This is a tall order, and I must refer him to the leaflets issued by the Ministry of Agriculture, 10, Whitehall Place, S.W.1, which will be sent him on receipt of 6d. Briefly, it is a parasitical disease to which all domesticated and wild birds are subject, even wild rabbits. In general, the highest mortality with chicks is between two and six weeks of age. After the latter age they become more resistant to the attacks of the parasite, and the mortality becomes less. The egg of the parasite may be voided in the excrement, and the soil becomes infected. There is also reason to believe that chicks which survive an attack become "carriers," and may lay infected eggs.

P. L. S. (Rothley) asks for an opinion on a mash for chicks from one to five weeks old. This is made as follows:—Sharps 5 lbs., maize meal ¾ lb., ground oats 1 lb., fish meal ¼ lb., bran ½ lb., biscuit meal 1 lb., feed oatmeal 1 lb., also clover meal, the amount of which is queried. In reply to this, why the combination of feed oatmeal and ground oats? The mash is deficient in mineral content. The clover meal would be unnecessary if the birds have free range, and I would suggest the mash would be much better if the feed oatmeal or ground oats were omitted. This would depend upon the quality of the feed oatmeal. As it is, the mash is deficient in protein and in its mineral content. With regard to the mash for adult stock, this is a layers' mash, and consists of: Sharps 5 lbs., ground oats 1 lb., feed oatmeal 1 lb., maize meal 1¼ lb., fish meal ¼ lb., dried yeast ¼ lb., with ½ lb. clover meal. This mash is also deficient in protein, and it would be better to increase the fish meal to ¾ lb. A good mash for hurrying on young spring table chickens would be the Wellingham mash, which is as follows:—20 lbs. bran, 45 lbs. middlings, 10 lbs. Sussex ground oats, 10 lbs. maize meal, 5 lbs. dried milk, 5 lbs. dried yeast, and 5 lbs. soya bean meal. This should be fed until they are ten weeks old.

A. L. (Wortley) wishes to use the following mash:—3 lbs. middlings, 1 biscuit meal, 1 Sussex ground oats, ½ maize meal, ½ dried yeast, ½ soya bean meal, and ½ Sussex ground oats. He wants to use cod liver oil in place of fish meal. This is to be a wet mash. My correspondent certainly does not understand the wide difference between cod liver oil and fish meal. One is a protein food containing a high percentage of lime phosphates, and the other is a pure fat, wholly deficient in lime phosphates; therefore cod liver oil could not replace fish meal. Further, the quantity he proposes using in the mash is excessive. Not more than 2 per cent. should be used, otherwise it is likely to cause serious digestive trouble. My correspondent has seen it stated that flint grit is a prolific cause of death up to 50 per cent., and he asks my opinion on this. Presumably this statement is made for advertising purposes. It is, of course, a gross exaggeration. Occasionally we have found that the sharp flint grit which is so much advocated has been the cause of death, and there is no doubt it is a very mistaken idea to feed it to young chickens. It is far more likely to be injurious than beneficial. For years I have pointed out that sharp flint grit which consists almost wholly of silica is of no value to poultry, but I would not go so far as to suggest so ridiculous a statement that it would be a 50 per cent. cause of death.

HANTS COUNTY LAYING TRIALS.

REPORT FOR SEVENTH PERIOD, ending 28th April, 1926.

Figures are eggs and points respectively:—

Section A.—Messrs. F. and C. Brundett (W.L.), 485, 3734; A. F. C. Holdaway (Pen 1) (W.L.), 490, 3655; A. F. C. Holdaway (Pen 2) (W.L.), 471, 3294; Capt. R. Mackenzie (W.L.), 426, 3205; Capt. H. Zambra (W.L.), 421, 3184; Mr. B. S. King (W.L.), 411, 3051.

Section B.—Miss W. E. Clarke (R.I.R.), 522, 3867; Mr. J. H. Thompson (W.W.), 432, 3045; Lord Wandsworth Agri. College (L.S.), 391, 2816; Mrs. G. Harper (R.I.R.), 459, 2798; Mrs. T. P. Cordery (W.W.), 366, 2778; Capt. R. Mackenzie (W.W.), 341, 3606.

THE GLOUCESTERSHIRE EGG-LAYING TEST.

Report for Seventh Month Ended April 23rd.

The following is the report on the Gloucestershire Laying Test (under the supervision of Mr. L. G. Price, County Instructor in Poultry Keeping), for the seventh month ending April 23rd:—

During the month 6,133 eggs have been collected against 6,270 the previous month, giving a total of 33,956 for the seven months, and an average of 106.4 per pullet.

The weather during the period under review has been wet and cold, and in consequence a slight drop in the number of eggs has been recorded. There has been very little broodiness, and in some cases slight ovarian trouble, otherwise the health of the birds is exceptionally good.

Section A. (1). White Wyandotte (Professional). Five birds constitute a pen).—G. W. H. Roberts, 3131 pts.; T. L. Davies, 3043; P. M. Hinton, 2717; H. W. Fowles, 2693; H. Ludlow Hewitt, 2651; H. Bennett, 2386.

Section A. (2). A.O.V. Heavy Breed (Professional).—C. D. Pratt (Bf. Rk.), 3226 pts.; G. H. H. Simmons (Bf. Rk.), 3020; G. B. Metcalfe (R.I.R.), 2942; Miss M. Lawrence (Bf. Rk.), 2915; D. K. Nuttall (R.I.R.), 2839; M. C. Beale (R.I.R.), 2698.

Section A. (3). White Leghorn (Professional).—Sherborne Park P.F. (36), 2728 pts.; Sherborne Park P.F. (1), 2661; G. W. H. Roberts, 2637; Miss H. Baylis, 2582; S. J. Phillips, 2475; Major J. G. Dugdale, 2452.

Section A. (4). A.O.V. Light Breed (Professional).—Capt. W. Anderson (An.), 2623 pts.; J.L. Brown (An.), 2409; F. W. Clifford (B.L.), 2200; Churchdown P.F. (An.), 1967; E. S. Coley (Ex. Leg), 1879.

Section B. (1). A.V. Heavy Breed. (Confined to owners of not more than 50 laying head).—G. D. Bond (W.W.), 3000 pts.; E. A. Craft (L.S.), 2899; W. P. Merrett (W.W.), 2659; E. G. Brown (W.W.), 2014; Miss M. Clarke (R.I.R.), 1684; Maisemore School (W.W.), 1587.

Section B. (2). A.V. Light Breed. (Confined to owners of not more than 50 laying head).—E. G. Brown (W.L.), 1899 pts.; C. E. Skirten (W.L.), 1765; F. E. Fowler (B.L.), 1672.

Pen Duck Section. (Four ducks to a pen).—G. H. H. Simmons (K.C.), 476 pts.; S. J. Phillips (K.C.), 427; Major J. G. Dugdale (K.C.), 407; Mrs. H. L. Hanks (K.C.), 392; G. B. Young (K.C.), 374; F. W. Clifford (K.C.), 318.

SINGLE PEN SECTION

Section 1. White Leghorns.—L. Grist (14), 701 pts.; A. Daunton, 582; Lieut.-Colonel Hancock, 540; Fielding Smith (4), 536; A. A. Paull, 518; Churchdown Pedigree Farm, 453.

Section 2. White Wyandotte.—H. W. Stephens (30), 657 pts.; Miss H. Baylis, 639; L. Grist, 570; A. W. Harrison, 550; H. W. Stephens (28), 549; Philip Clapham, 548.

Section 3. Rhode Island Red.—F. A. Welch, 620 pts.; M. C. Beale, 593; Wood and Bacon, 469; A. Daunton (46), 427; Miss M. Lawrence, 411; W. Bingle, 386.

Section 4. A.O.V Light Breed.—R. Sysum (Br.L.), 522 pts.; White and Martyn (B.L.), 365; Churchdown Pedigree Farm (B.L.), 312; Miss N. Townsend (B.L.), 211.

Section 5. A.O.V. Heavy Breed.—Mrs. E. Weinholt (Aus. Orp.), 595 pts.; F. R. Welch (L.S.), 579; G. H. H. Simmons (Bf. Rk.), 543; Philip Clapham (Bf Rk.), 521; Miss M. Lawrence (B'Veld), 499; G. B. Young (L.S.), 489.

Section 6. Ducks.—H. L. Hanks, 189 pts.; Major J. G. Dugdale (3), 176; H. W. Fowles (2), 163; Major J. G. Dugdale (4), 155; F. W. Clifford, 151; G. H. H. Simmons, 132.

Concerning Chicken-Pox.

By J. STEPHEN HICKS.

Soon after the war—only a couple of seasons, in fact, after I settled at Heathfield, in East Sussex—I experienced a somewhat remarkable outbreak—remarkable not so much for its intensity or devastating effects as for certain interesting details concerning infection, etc.

In order to fully explain what happened, it will be best to first mention exactly what was taking place on my premises at the time. It is my annual custom during the summer to herd all the "disbanded" breeding females together and give them a change of scene in makeshift quarters, while renovation of their sheds proper is being carried out. On this particular occasion a large meadow adjoining mine, and owned by a non-poultry-keeping neighbour, had been hired for a couple of months, and during the first week in August we were preparing to shift the hens thither, a suitable number of light movable roosts—mere shelters containing perches and without floors—having been carried to the meadow in readiness.

The accompanying rough plan indicates this field, which is marked 8. The hens, to the number of perhaps 80-odd, had meanwhile been collected and accommodated for a day or two in the run with shed marked 7, on the home preserves. During this round-up several small combats occurred between "strangers" as inevitably happens on such occasions. Few poultry farmers, however, take much notice of these female "scraps"—at any rate I did not, and the move duly took place. At this juncture I should mention that, knowing eggs would fall off rapidly under the rough-and-ready conditions about to exist for the next six weeks or so, I handled the birds just before moving, and retained fifteen that seemed still in full lay. These last were kept all the time (owing to events) in the shed. All were perfectly normal at the time of handling. For convenience we had cut the hedge dividing the properties fairly low in one corner and rigged up a stile here (see plan), over which the attendant climbed on his diurnal feeding rounds.

All continued without accident for about six days. Then one morning, when I happened to be feeding the flock personally, I noticed a couple of birds with apparently swollen heads. Having caught them I found, to my dismay, that the heads were covered with yellowish warts. At once I feared the worst, for I had had experience, a dozen years before, of true diphtheria (fowl pox, diphtheritic roup, canker, or whatever else you like to call it, but I prefer diphtheria), with its horrible complications, of which "head pox" was but one. It was, at this particular moment, late in the afternoon—a Sunday—and all I did then was to drag one of the roosts well apart from the remainder and confine the two hens therein.

The whole of the hen flock was gone through first thing next morning, and four more bad cases came to light, faces and combs a mass of "warts," while the two originals had "progressed" considerably. Also, inside the mouth of one was a whitish patch, and this, combined with my previous experiences, fairly "put the wind up." I then and there killed the half-dozen, burying them "full fathom five" in the faint hope that this might check the disease. Later on I bitterly regretted this hasty action, especially as two of these were very valuable breeders. However, 'twas done, but alas! another examination two days later brought to light several more cases, not quite so virulent, however. These, on examination, proved to have nothing wrong inside the mouth at all—merely the head scabs, and I now began to wonder whether, after all diphtheria **was** present, especially as I called to mind the fact that I had sniffed at the mouth of the now defunct bird having the patch inside, and had noticed none of the appalling smell that emanates from the "real thing."

Anyway I resolved to kill no more, but merely confined them in the separate roost. To be as brief as possible, another day or two confirmed my opinion that the outbreak was merely chicken-pox—though bad enough, as every day fresh cases arose, and my constant fear was that the complaint would spread rapidly all over the farm proper, now of course chock-a-block with a full complement of chickens of the year of varying ages. The first roost soon becoming full, a second was requisitioned, and, for a short time, at the height of the outbreak, a third came into use. Daily treatment was of the simplest, a bowl of disinfectant hot water being taken over to the "hospital" roosts, together with some rags, some iodoform or sulphur ointment, and some vaseline. Each bird's head was well swilled in the water, dried and then anointed, one day with the stronger ointment, the next with vaseline.

All birds ate well so long as they could see, and only at the height of the epidemic were one or two off colour in appetite, and that mainly because the swellings closed their eyes. Only one more bird had to be killed, and this because of the subsequent blindness.

The earliest cases were the worst, and took longest to cure, birds needing to be confined for rather over a fortnight, after which the scabs, having first blackened, peeled off, leaving a clean, if anaemic-looking, face.

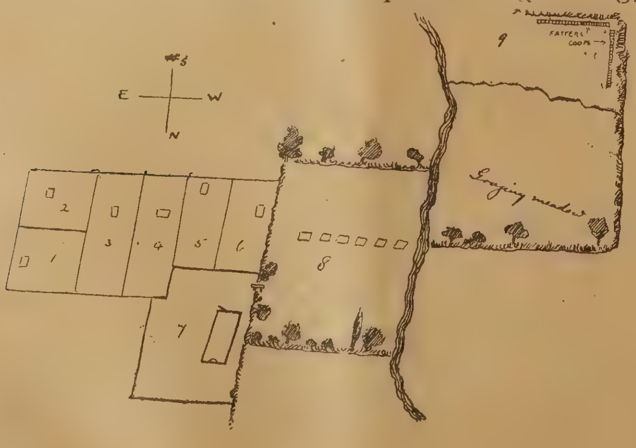
Later on, that is early in September, though fresh cases from among the same flock were still coming in, they were neither so virulent nor so long in curing, and ten days' treatment usually sufficed. In another fortnight mildly-affected hens only were discovered, some merely having a couple of spots perhaps, and finally, by early October, this particular flock was clear. Two-thirds of the hens here were affected in one way or another, the outbreak having thus spent itself (on this flock) in two months. Incidentally I felt constrained to keep these birds where they were for another three weeks, feeding them up generously meanwhile, and, as a matter of fact, all laid and bred well later on—the same winter.

As may be imagined, the cause of original infection had all this time been occupying my thoughts not a little. First and foremost, I had not had a strange fowl on the farm for months, nor had I experienced a single case of disease since restarting in this district. As has been stated, no poultry had run on this neighbour's field for years, nor could I hear of any similar outbreak in the neighbourhood at the time.

Later on, however, I learned that a fattener, whose pens were situated on a slope some 400 yards S.W. of the boundary to this field (see plan), had had some trouble or other among a consignment of Irish birds he had imported in July. Details, however, were lacking, and the fattener had long since killed these particular birds. Nevertheless, for want of a better solution, I was forced to the conclusion that wild birds, or may be the wind, had carried infection from his stock to mine, and certainly there had been high south-westerly gales about the time of the original move.

At the same time, and I give this information for what it may be worth, it is noteworthy that a form of chicken-pox was rife that summer among the local children, and my own two little girls had had it shortly before. They were, however, isolated, and did not in any case have anything to do with the poultry.

Now, perhaps, readers will glance at the plan again. The young stock pens (numbered 1 to 6) were occupied as follows:—(1) Pullets, (2) Cockerels, (3) Pullets, (4) Cockerels, (5) Pullets, (6) Empty. About three weeks after the chicken-pox started in the meadow (8), two cockerels in pen 2 had a mild "set-to." Black scabs formed on their scratches, whereupon I jumped to the conclusion that the chicken-pox would soon be all over the place. These birds, however, though undoubtedly affected with a milder form of the disease, did not develop it any further, and about three weeks later the scabs peeled off (showing, usually, some whitish "roots"), and all was well here. Then, just as I imagined the "all clear" could be sounded, three or four of the cockerels in Pen 4 suddenly developed the well-known spots. These, curiously enough, were quite bad cases again, developing whitish lumps and plenty of them, and it was not finally until well on in October that the last bird in Pen 4 was free, after which there was no further sign of the disease.



The most puzzling things occurred (as they generally do in these outbreaks, and for which there seems little rhyme or reason) during this period of nearly three months. For example, the hens already mentioned as being retained because they were laying well in Pen 7, next the lot most affected, remained immune the whole time, and this in spite of the fact that one hen from meadow 8 somehow or other managed to get back among them several times by squeezing through the hedge during the height of the trouble. Then a pullet from Pen 3 was discovered to have stolen a nest in the affected Pen 2, next door, when the cockerels there were "down" with the complaint, yet nothing happened either to her or her companions to whom she evidently returned daily (she flew the fence until clipped). In fact no pullets whatever, or any bird, old or young, in other parts of the farms, were in any way affected at all (the area shown on the plan constitutes rather less than one-half of my premises, though the remainder adjoins and communicates). The question, therefore, of attendants carrying infection on boots or clothing, as they might well have done, does not seem to have arisen. Beyond washing the hands thoroughly after daily treatment, the wearing of a special overall only on these occasions, and always feeding the sick birds last, I cannot say that any special precautions were taken during this period. Indeed, seeing that wind or wild birds may quite conceivably act as carriers, I think that the most one can do in any disease outbreak is for one person only to attend to the sick (and no others), to wear special clothing while doing so, and to disinfect himself each time afterwards. One makes a great mistake, in my opinion, in carrying sick birds about into buildings at these times, and, if in any way possible, I much prefer to leave everything exactly where it is at the commencement—even if it involves rigging up temporary "hospital" accommodation in various spots.

I am still unable to decide exactly how the far-away cockerels in Pen 2 became infected. Did they fight at the psychological moment when germs were being wafted towards them? Would any other birds near that happened to abrade themselves just then have caught it? Not necessarily, I think, because I remember noticing scratches on some pullets' combs in other adjoining pens and expecting infection there, which did not occur. Then, of course, most of the original hens contracted the pox merely by contact, and yet contact in other cases brought no result!

(Continued at Foot of Column Next Page).

Correspondence.

Dear Sir,—In reply to Mr. J. A. Malcolm's idea (in "Eggs," May 26th) of a combined semi-intensive plant, the lay-out is very similar to my suggestions in an earlier copy of "Eggs."

The following suggestions are offered :—

(1) The two incubators must be set on a concrete floor to avoid vibration. Even then they are in a somewhat draughty situation.

(2) The food store, 20 ft. x 10 ft., is very small.

(3) The egg store is also inadequate, inasmuch as it has to house about 2,000 eggs per week plus eggs for incubation.

(4) Proper drainage for flushing concrete pens must not be overlooked.

(5) The rough cost of the lay-out is :—

Buildings	£650
Incubators	£200
Concrete pens	£350
1,000 birds	£500

The initial capital outlay is therefore about £1,700.

I consider the yearly purchase of laying pullets will absorb very nearly all the profits, and that Mr. Malcolm would do better to rear his own birds.

Should disease break out, of course Mr. Malcolm is "for it."

May I suggest that if sand is available 9 inches of sand on 4½ inches of rubble foundation could replace concrete, thus eliminating the considerable expense of concrete floors, an individual sand bath, and supplying sun baths, from which droppings could be raked off, and which would dry almost immediately after rain, and would not produce skating rinks for the birds in winter.

These runs could be disinfected by liming.

When the lay-out is reconsidered it might be advisable to have eight large sections instead of six, and utilise the remaining space for four small sections, larger food and egg store, and a less draughty and more secluded position for the incubators.

Yours faithfully, E. ISMAL.

Dear Sir,—I am very interested in Mr. Malcolm's idea for a 1,000 hen plant, but would think, in the light of recent invention, that the provision of concrete runs primarily for the purpose of a sun bath, would be a needless and unwarrantable expense. Glass is now available that is fully transparent to the vital health-giving, ultra-violet rays, and which moreover allows rather more of the visible rays to pass than ordinary glass, so that a house so glazed has distinctly better illumination than the conventional type.

Besides, it has now been scientifically demonstrated that the beneficial effect of the health-giving rays is greatly intensified when the surface of the skin is warm, and that in this country, unless in summer, the chilling effect of the outside air largely discounts the potential benefits of the rays.

It is obvious, therefore, that the whole expense of the concrete runs could be saved, and that, too, with benefit to the fowls, since in a specially-glazed house they could bathe in the vital rays under the more highly advantageous conditions of warmth.

I think the idea might well be developed into a complete incubating, rearing, fattening and laying unit—a complete farm under one roof—and it would be interesting to have the opinions of the intensive enthusiasts on this point. Breeders would be the knotty problem, but even there, I believe, the solution is within sight.

Faithfully yours, "THISTLE."

THE MANCHESTER ASSOCIATION.

GENERAL MEETING, APRIL 19th, 1926.

Held in United M. F. Church Lecture Room, Seymour Road. Present:—Messrs. Butterworth, Ford, Crock, Gledhill, Minnis, Hunt, Hallworth, Morgan, Bairstow, Blackburn, H. Hall, Drinkwater, Carr, Holland, Cooper, Hutchinson, Maxwell, Eyres, Gyves, Saxon, Keirby, Porter, and Mrs. Porter. Mr. Butterworth in the chair.

Agenda included: Previous minutes. Correspondence—Result of Draw. Winning Nos. being: 1st, 1339; 2nd, 10448; 3rd, 4504; 4th, 4364; 5th, 1556; 6th, 4416. A profit of £14 4s. 4½d. resulted.

Rhubarb and Egg Shows.—Alteration of Schedule (Members' Open Classes). The addition of R.I.R., W.W., and W.L., making ten classes in all confined to members.

Mr. Keirby, of Blackpool, gave an interesting garden lecture on "The Preparation of Exhibits for Show from Seed to Maturity," and judged the Rhubarb Class. Mr. Bairstow 1st and 3rd; Mr. Holland 2nd; very worthy exhibits.

Egg Class, Mr. S. Porter judging. 14 entries. 1st and Bronze Medal, W. Carr; 2nd and 3rd, Mr. Saxon; Reserve, Mr. Ogden. Quality exceptional throughout, and winners very hard to fault. Without doubt the finest selection put down by members, who deserve praise for progress made in this line.

All exhibits afterwards auctioned. Rhubarb realising 1s 7d; Eggs realising 7s. 0½d.

Meeting terminated, with vote of thanks to lecturer, at 10.30 p.m. Mrs. T. M. PORTER, Assistant Secretary.

I have had experience of other diseases in the past on my own and also on other people's farms, and each time have noted similar puzzling inconsistencies. One feature only seems to have been constant in every case—namely, that the trouble, having started, spreads rapidly at first, rages for a time, reaches its heights, and then gradually dies down—all this in spite of anything one may do or attempt.

During the initial stages cases are virulent, and do not yield easily to treatment. After the zenith has been passed, the reverse is the case, and I often think that any expert called in on these occasions may thank his stars if his advent occurs during the later stages of an outbreak. It may make a lot of difference to his reputation! I say this without intending the least reference to any particular cases, and without any implication, favourable or otherwise, on any particular remedies.

It would be interesting to learn from some medical source the connection (if any) between chicken-pox in poultry and among humans. Why the name, for instance, as applied to the complaint of our childhood?

Again, why should there be any connection, as we know there so often is, between bird diphtheria and chicken-pox? I presume the two are never known in conjunction with humans?

Food Purchase Scheme.

ALL PRICES ARE SUBJECT TO MARKET FLUCTUATIONS.

May we state that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns, but the undermentioned are special items. Price list will be despatched to any member, if application is made to this office.

Referring to the odd cwts., which are now supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown. This is to cover the extra expenses and handling which the one cwt. business involves. If the total order for one firm amounts to 5 cwts. and over, this extra charge will not be made.

Will all members ordering under this scheme kindly note that orders received by second post on Saturdays cannot be dealt with until the following Monday.

All orders accompanied by cheque should be sent to Mr. Tom Newman, Secretary, Rudgwick, Sussex.

SPECIAL OFFERS.

FISH MEAL: F.O.R. GRIMSBY and TYNEMOUTH—5 cwts. and upwards, at 16/9 per cwt.; under 5 cwt. orders at 17/6 per cwt.

UNEXTRACTED DRIED YEAST: F.O.R. GRIMSBY and HULL—At 20/3 per cwt. for 5 cwt. orders; 21/- for orders under 5 cwts.

FISH MEAL, with the following analysis:—

OIL ... ... 4.5 per cent.
ALBUMINOIDS ... ... 55.60 per cent.
PHOSPHATES ... ... 16.18 per cent.

Prices F.O.R. LONDON

Under 5 cwts. ... ... 18/9 per cwt.
5 cwts. orders and upwards ... 17/9 per cwt.

FISH MEAL	17/9	F.O.R. SWANSEA.
" "	16/9	F.O.R. MIDDLESBRO'.
MAIZE GRITS	10/6	F.O.R. LONDON.
" "	10/6	F.O.R. IPSWICH.
MAIZE GERM MEAL ...	8/3	F.O.R. LONDON.
" " " ...	8/3	F.O.R. IPSWICH.
S. G. OATS	12/6	F.O.R. SUSSEX.
MEAT AND BONE MEAL	15/3	Carriage Paid.
MEAT MEAL	15/9	Carriage Paid.
ALFALFA	11/9	F.O.R. LONDON.
"	11/3	F.O.R. BRISTOL.
BONE FLOUR	9/6	F.O.R. LONDON.

LIMESTONE GRIT: F.O.R. BRADFORD (three grades)—Poultry, Medium. Chicken. In minimum orders of 5 cwts. at 2/6 per cwt.; single cwt. included in order for other goods from Bradford, at 2/9 per cwt.

FISH MEAL:—

OIL ... ... under 4 per cent.
SALT ... ... under 3 per cent.
ALBUMINOIDS ... 55/60 per cent.
PHOSPHATES ... 15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—

ALBUMINOIDS ... 35/40 per cent.
FATS ... ... 10/15 per cent.
PHOSPHATES ... 25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—

ALBUMINOIDS ... 57/62 per cent.
FATS ... ... 10/15 per cent. at 15/6 per cwt.

F.O.R. MIDDLESBROUGH.

F.O.R. DERBYSHIRE.—Limestone Grit, Poultry and Chick Size, at:—5cwts. orders and upwards at 2s. 6d. per cwt; single cwts. at 3s. per cwt. Limestone Flour, 5cwts. orders and upwards at 4s. per cwt.; single cwts. 4s. 6d. per cwt.

COD LIVER OIL, Carriage paid:—1 gall. drum at 6s. per gall.; 5 gall. drum at 5s. per gall.; 10 gall drum at 4s. 3d. per gall. Also packed in 40 gall. barrels. Drums inclusive and non-returnable.

	MASHES					CHICK FEED		MIXED	S.G.	FISH	MEAT	MEAT & BONE
	Layers	Growers	Breeders	Chick	Fattening	No. 1	No. 2	CORN	OATS	MEAL	MEAL	MEAL
Liverpool	11/-	11/-	12/-	12/-	12/-	17/-	15/-	13/3	15/-	20/3	19/-	15/-
London	11/9	11/9	12/9	13/-	12/9	17/9	16/3	13/9	13/6	17/6	...	13/6
London	11/-	11/-	12/-	12/3	11/9	17/6	16/-	...	...	...	...	...
Leith	10/3	10/3	10/9	11/3	11/3	16/3	15/9	11/9	13/-	18/9	...	13/3
Leicester	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	13/6	21/-	...	13/9
King's Lynn	11/-	11/-	11/6	12/3	11/9	17/3	15/6	13/6	15/-	18/9	...	13/-
Belfast	12/9	12/3	13/-	14/-	...	18/-	16/9	...	13/3	20/-	15/-	12/9
Bristol	11/3	11/3	12/-	12/9	12/-	17/9	15/9	13/3	13/3	17/9	..	12/9
Southampton	11/3	11/3	12/3	12/3	11/9	17/6	15/6	11/9	13/9	19/6	..	13/6
Plymouth	12/-	12/6	12/6	14/-	11/9	19/-	16/9	13/3	15/9	20/9	...	16/9
Aberdeen	11/3	11/3	12/6	12/6	13/-	16/6	15/9	...	12/6	17/6	..	12/6
Harrogate	11/6	11/6	12/3	12/9	12/9	17/6	15/3	...	13/6	20/-	...	13/6
Glasgow	12/-	12/-	12/-	13/-	12/-	17/-	15/-	12/3	13/6	19/3	17/3	15/3
Staffs	10/9	10/9	11/3	11/3	11/3	17/6	15/-	13/9	13/6	19/-	...	13/3
Kettering	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	13/6	21/-	...	13/9
Bradford	11/6	11/6	12/3	12/9	12/3	17/6	15/9	13/3	14/-	17/6	18/-	14/-
Birmingham and Wolverhampton	10/9	10/9	11/6	11/6	11/-	16/9	14/6	11/9	12/6	18/9	...	13/9
Greenock	11/-	11/3	12/-	12/9	13/-	17/9	15/9	...	15/-	20/3	15/9	15/3
Tewkesbury	11/3	11/3	12/-	12/9	12/-	18/-	15/-	11/9	13/3	20/3	...	13/6
Bolton	11/-	11/3	12/3	12/3	12/-	17/-	15/3	13/-	13/6	20/3	...	14/-
Middlesbrough ...	11/-	11/3	12/3	12/-	12/-	17/3	16/3	...	13/6	16/6	15/6	12/9
Mid Sussex	11/3	11/-	11/6	12/3	11/6	17/3	15/3	13/-	12/6	19/6	17/6	17/-
Sussex (East) ...	11/6	11/9	12/6	12/-	12/3	17/6	15/-	...	12/6	21/-	...	14/-
Sussex	11/6	11/6	12/6	12/6	12/6	18/-	15/3	13/-	12/9	19/6	...	18/-
Essex	11/-	11/6	11/9	14/3	...	17/9	15/9	...	13/6	...	...	...
Birkenhead	10/6	10/9	11/6	11/6	12/-	17/-	15/-	12/6	12/6	...	..	13/9
Isle of Wight	11/9	12/-	13/6	15/-	...	18/6	17/6	12/6	16/-	21/-	...	15/-

It would be of very great assistance if members when ordering would always **STATE STATION** they wish goods despatched to, also their **NEAREST DEPOT.**

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, 11th JUNE, 1926.

GRAIN AND FEEDING STUFFS.—British wheat is scarce, and recent quotations are maintained at all centres, the average price again being 13s. 7d. per cwt. Trade for imported wheat is quiet, and quotations generally show little change on the week, most price changes being in favour of buyers. Barley meets a limited demand, and imported feeding descriptions are quoted at slightly lower rates at most markets. Small offerings of English oats make about recent prices, while imported, which are in little request, are occasionally slightly cheaper on the week. Maize generally meets a quiet trade and prices at Hull and Liverpool are 2d. per cwt. lower as compared with a week ago.

Only a small trade is passing in millers' offals and meals, and several descriptions have become cheaper. British bran now averages about £5 13s. and coarse middlings £6 17s. per ton, as compared with £6 and £7 respectively in the previous week, and £6 17s. and £8 4s. a year ago. Oil cakes generally sell at late rates, except at Hull, where reductions ranging from 2s. 6d. to 5s. per ton are recorded. English-made cotton seed cake (5½ per cent. oil) averages about £6 16s. and linseed cake (9 per cent. oil) £11 3s per ton, these prices being about £1 17s. per ton below those ruling in the corresponding week of 1925.

MILLERS' OFFALS.—Bran (British): Bristol, £6; Hull, £5 7s; Liverpool, £6; London, £5 5s. Broad Bran: Hull, £6 7s; London, £5 15s. Middlings—Fine (Imported): London, £7 5s; Coarse (British): Bristol, £7; Hull, £7; Liverpool, £7; London, £6 7s. Pollards (Imported): Bristol, £6; Hull, £5 10s; Liverpool, £5; London, £5 15s. Rice Bran: Bristol, £6 10s; Liverpool, £6 10s; London, £5 15s. MEAL—Barley Meal: Bristol, £9 10s; Hull, £9 13s; London, £9 15s. Maize Meal: Bristol, £9; Hull, £7 18s; Liverpool, £8 7s; London, £8 15s. Maize Meal (S. African): Bristol, £8; Hull, £8; Liverpool, £7 15s; London, £8. Maize Germ Meal: Hull, £7 10s; London, £7 10s. Maize Gluten Feed: Bristol, £9 15s; London, £8 10s. Maize Cooked Flake: Hull, £10; Liverpool, £10 5s; London, £10. Locust Bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9. Bean Meal: Bristol, £13; Hull, £11 17s; London, £12. Fish Meal: Bristol, £20 10s; Hull, £18 10s; Liverpool, £18; London, £18.

EGGS AND DEAD POULTRY.

Eggs are very plentiful and, with a depressed market, values continue to depreciate. Dead poultry generally favours buyers, only the best birds being inquired for.

Week-end Prices—Eggs (per 120): British, 11s 3d, 10s 0d; Irish, (extra selected), 11s 0d; Irish (selected), 10s 3d; Danish (18 lb.), 14s 3d; Danish (15½—16 lb.), 11s 6d; Dutch, brown, 12s 3d; Dutch, mixed, 11s 3d; French (brown), 12s 6d; French (Normandy), 10s 6d; French (Brittany), 9s 3d; Belgian, 10s 6d; Polish, 8s 9d, 7s 3d.

Dead Poultry (per lb.): Fowls—Surrey, 2s 2d, 1s 10d; Irish, 1s 6d, 1s 4d; Others, 1s 9d, 1s 7d. Ducks, 1s 7d; Second, 1s 6d. Geese, 1s 3d, 1s 0d.

EGGS.

Per Doz.—Ashford: First, 1s 3d; Second, 1s 2d. Birmingham: First, 1s 3¾d; Second, 1s 1¼d. Bridgwater: First, 1s 2½d; Second, 1s 0½d. Chelmsford: First, 1s 4¾d; Second, 1s 3½d. Colchester: First, 1s 4¼d; Second, 1s 1¼d. Doncaster: First, 1s 4d; Second, 1s 3d. Dorchester: First, 1s 2½d; Second, 1s 1d. Exeter: First, 1s 0d. Hereford: First, 1s 0d. King's Lynn: First, 1s 2d; Second, 1s 0d. Llandilo: First, 1s 0d; Second, 11½d. Mold: First, 1s 1d; Second, 1s 0d. Montgomery: First, 1s 0d. Newport (Mon.): First, 1s 2d; Second, 1s 1d. Norwich: First, 1s 4½d. Oswestry: First, 1s 1d. Penzance: First, 1s 1d; Second, 1s 0d. Saffron Walden: First, 1s 4¼d; Second, 1s 1¼d. St. Ives (Hunts): First, 1s 4½d; Second, 1s 2¼d. Salisbury: First, 1s 1½d; Second, 1s 0½d. Skipton: First, 1s 5d. Swindon: First, 1s 2½d; Second, 1s 1d. Truro: First, 1s 1d; Second, 1s 0d. Welshpool: First, 1s 2d; Second, 1s 1d. *Carlisle: First, 1s 2d. *Derby: First, 1s 3d. *Ipswich: First, 1s 5d; Second, 1s 2d. *Lincoln: First, 1s 3d. *Shrewsbury: First, 1s 1d; Second, 1s 0d. *York: First, 1s 5d; Second, 1s 4d.

FOWLS.

Per lb.—Birmingham: First, 1s 8d; Second, 10½d. Doncaster: First, †5s 0d; Second, †4s 6d. Exeter: First, 1s 6d; Second, 1s 3d. Hereford: First, 1s 8d. Llandilo: First, 1s 10d; Second, 1s 3d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First, 1s 7d. Welshpool: First, 1s 7d; Second, 1s 5d. *Derby: First, †5s 9d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 2s 0d; Second, 1s 9d. *York: Second, †3s 6d.

DUCKS.

Per lb.—Birmingham: First, 1s 8d; Second, 1s 6d. Exeter: First, 1s 4d; Second, 1s 2d. Hereford: First, 1s 4d. Llandilo: First, 1s 10d; Second, 1s 4d. Welshpool: First, 1s 8d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

“Eggs.”

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, June 16th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of “Eggs” to their poultry-keeping friends.

Subscriptions to “Eggs,” 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.
Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, “Eggs,” 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of “Eggs,” it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICANTS FOR MEMBERSHIP.

Wright, N. J., 2, Digby Street, Crosby, Scunthorpe, Lincs.
Girling, Mrs. M., “Hillcrest,” Chalk Hill Road, Wembley Park.
Bootes, Mrs. M. E., Apple Tree P. Farm, Red Brook Street, Woodchurch, near Ashford.
Gray, Thomas, Broadstone, Beith, Ayrshire.
Foster, Miss D. P., Ramillies P. Farm, Trevillis, Liskeard.
Mirfin, Joseph, Rampton, Retford.
Leach, Mrs. W. A., Brandish Street, Allerford, Somerset.
Wilmer, A. J., 7, Penkhull Terrace, Stoke-on-Trent, Staffs.
Marshall, G. B., Keadybeg House, Whitecross, Armagh, Ireland.
Jones, Lawrence, Plantation Stock, Ingatestone, Essex.
Crosfield, J. J., Embley Park, Romsey, Hants.
Waterman, John H., Barcombe Farm, Alton-Pancras, Dorchester, Dorset.
Bennell, J. C., Griff House, Nuneaton.
Andreae, Alfred, 71, Victoria Road, Barkingside, Essex.
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Woods, Andrew, Ballyminetra, Groomsport, Bangor Co. Down, N. Ireland.
Scrimgeour, Mrs. J. C., Stedham Hall, Midhurst, Sussex.
Rowland, James H., North Carnmorth, St. Day, Truro, Cornwall.
Barr, John, 12, Ewing Street, Kilbarchan, Renfrewshire, Scotland.
Hinde, R., 6, Cobbs Gardens, High Street, Olney, Bedford.
Fryers, Robert H., Brookside P. Farm, Bradley, via Keighley, Yorks.
Pickup, H., “Oakfield,” Park Lane, Great Harwood, near Blackburn.
Wright, Robert, Thornlee Brook, Springhead, near Oldham.
Bell, David H., Windmill Farm, Coagh, Co. Tyrone, Ireland.
Wheeler, Miss Edith, Smeeton Westerby, Leicester.
Thomas, Mrs., Colgate, near Horsham, Sussex.

EGGS.

FOR SALE.

ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. Rhode Island Reds (Boucher). Eggs, Stock Cockerels and Pullets. List free. Satisfaction insisted on.

White Guinea Fowl Eggs, 7s. dozen; 15, unreplaced.—Mrs. Rees, New House Farm, Peterstone, Wentloog, Mon.

EGGS AND CHICKS.

FOR SALE.

"DAILY MAIL" CROSS-BRED TEST, 1925/6.
W. Leghorn x W. Wyandotte.
Three winter months.
SECOND PLACE, PULLET SECTION.
Eggs from parent pen of above, 10s. 6d. per dozen. No chicks for one month. Also sittings and chicks R.I. Reds (Sandhills-Golden, Boucher), and W. Wyandottes (Sandhills' large eggs).—J. A. Brawn, Sandhills Poultry Farm, Shire, Oak Hill, near Walsall, Staffs.

DERRINGSTONE POULTRY FARM.
RHODE ISLAND REDS, LIGHT SUSSEX, WHITE, BROWN, & BLACK LEGHORNS.
SITTINGS FROM 5/- PER DOZEN.
THREE-MONTH-OLD PULLETS 7/6.
BREEDING PENS FROM £4 4s.
Orders booked for Ready-to-Lay Pullets.—P. F. Gleed, Derringstone Poultry Farm, Barham, near Canterbury.

REDUCED PRICES.

Eggs and Chickens from our famous Trap-nested, hardy strains of heavy layers. R.I. Reds, Wyandottes, Sussex, Orpingtons, Rocks, Leghorns, Anconas.

EGGS.
5s., 12; 10s., 26; 17s. 6d., 50; 30s., 100.
Unfertiles replaced.

DAY-OLD CHICKS:
10s., 12; 20s., 25; 37s. 6d., 50; 70s., 100.
Live delivery guaranteed. All Eggs and Chickens guaranteed from our own flock of nearly 5,000 selected birds on exposed grass runs. You cannot obtain better value at any price. We have hundreds of regular customers. Will you become one Send for free Illustrated Catalogue. Special reductions for large orders.

EASTMAN BROS.,
SUFFOLK POULTRY FARM, HADLEIGH.

100 CHICKS, 39/-.

Boxes free, carriage paid up to London, aerial travel two hours. Pure-bred White Leghorn, White Wyandotte, Black Bresse, Salmon Faverolles. Catalogue free. —Etablissements, "Chanteclair," Chaville (S et O), near Paris (France).

CUSTOM HATCHING.

26s. per 150. £8 per 1,000. Chicks returned carriage paid. — "Little Hadlow" Poultry Farm. Hadlow Down, Sussex.

100 CHICKS, 33/-

Carriage paid up to London; two hours' aerial travel. Leghorn, Wyandotte, Salmon Faverolles, Black Bresse; immediate despatch. — Etablissements, "Chanteclair," Chaville (S. et O.), near Paris, France.

PULLETS.

FOR SALE.

White Leghorns. Pullets, Cam's; records 220-284; sire's dam 275; 4-4½ months; 10s.; three months, 8s. 6d.; two months, 7s. Cockerels, 6s.—10s. each.—Ekins, Grange P.F., Doddington, Wellingboro'.

PULLETS.
Light Sussex and White Leghorn Pullets, three months upwards, from 7s. 6d.—Major Disney-Roebuck, Hoo Meavy Poultry Farm, Yelverton.

PULLETS.

FOR SALE.

Guaranteed Day-Old Pullets; Leghorn-Rock; 16s. dozen; Sowerby, winner, "Daily Mail" First Cross Test.—Cuxwold Poultry Farm, Caistor, Lincs.

Rhode Wyandotte Rock Pullets, hatched early February; good laying strains; 50s. for six; carriage forward.—Bowden, East Knowle, Horeham Road, Sussex.

Ten W.L. Pullets, four months; reared from eggs from Priest and Shaw's Pen 1; 8s. 6d. each.—Davy, Selwyns P.F., Waldron, Sussex.

Four Light Sussex Pullets, 4½ months; 10s. each; younger birds, also R.I.R. and Leghorn Pullets.—Ford Lane Poultry Farm, Northenden, Cheshire.

R.I.R and W. Leghorn Pullets; three months, 6s. 6d.; four months, 9s. All on free range.—Bourne, Mundford, Norfolk.

Black Leghorn Pullets, 15s. and 17s. 6d., from our medal winning strain.—Further particulars on application to Thomson, Penypylle, Holywell, Flints.

Thirty White Leghorns, Rodwell-Barron, hatched April, 1925; laying; room wanted; 7s each; approval.—H. Helm, Hade Edge, Holmfirth, Yorks.

ST. OSYTH'S PRIORY POULTRY FARM, Essex. W. Leghorn and L. Sussex Pullets; three months old pullets; ready now and onwards; 5s. to 10s. each, according to age and record. Also Stock Cockerels.

RHODE ISLAND (Boucher).
WHITE WYANDOTTES (T. Barron).
WHITE LEGHORNS (Allen Bros.).
Owing to absence abroad in the coming autumn and winter, I am obliged to dispose of the whole of my healthy trap-nested stock. Seventy 1925 W.L., 50 1925 R.I., 7s. each; 1926 35 W.L. Pullets, January hatched, 8s. 6d.. March hatched, 7s.; April hatched, 6s. (two months). Also Rhode Islands — Full particulars from Rev. R. Pulleine, Ripley Rectory, Harrogate.

BUFF ROCK PULLETS.

Twenty-four Three Months Old, 8s. 6d. each, from 200-egg dams or over. Pullets and Stock Cockerels booked.—W. B. Farrar, Brookroyd, Batley, Yorks.

3-MONTH-OLD PULLETS.

Light Sussex and Rhode Island Red.—Lieut.-Comdr. Kingdon, Springfield, Stockbridge.

1926 R.I.R. PULLETS,

FROM TESTED PARENTS.

Full sisters to my pen now holding second position, Laindon Laying Test, and bred from dams with records 221 to 252, sired by proved cock from dam with winter record of 75 first-grade eggs, by 221—240. Prices 3 to 3½ months, 10s., 4 to 4½ months, 12s. 6d. each. Individually-bred Cockerels from 12s. 6d. Carriage paid. Approval.—Rowland Cooke, Kirbymoorside, York.

FIRST CROSS PULLETS.

Now Booking for June Delivery onwards. 2-months-old Pullets, 4s. 6d.; 3-months-old Pullets, 5s. 6d.; 4-months-old Pullets, 7s. Carriage paid. Cash with orders, or deposit.—Great Fransham P.F., Fransham, Norfolk.

WHITE LEGHORN PULLETS,

From trap-nested stock, ready July 1st onwards. The
MISSES RANSFORD'S STRAIN.
Three months, 8s. 6d.; four months, 9s. 6d.; five months, 10s. 6d.

MORGAN & SWAIN,
Gilmor Poultry Farm, Higher Heath, Whitchurch, Salop.

PULLETS.

FOR SALE.

Faverolle-Sussex, March hatched Pullets pure first cross; very healthy stock; 10s each.—Peirson, Woodgate, Beckley, Sussex

Barnevelder Pullets, hatched 1925, from pen costing £8 8s.; direct from Mrs. Walker. Excellent layers of large brown eggs. Make good breeding stock; 10s. each. Carriage paid on six.—M. Rowell, Bury, Huntingdon.

Black Barnevelder Pullets, February 1926; 10s. 6d. each.—Mrs. N. Wilkinson, Anthony's Cross, Newent, Glos.

White Wyandotte Pullets; three and four months old; from 6s. 6d.—Captain Lewin R.N., Newport, Essex.

COCKS AND COCKERELS.

FOR SALE.

R.I.R. Cockerel, three months old, from tested parents; 10s. 6d. each; six carriage paid; crates free.—E. W. Spencer, Holly Lodge, Lawford, Manningtree, Essex.

Mrs. Thompson, M.S.P.B.A., Batchcott Rectory, Ludlow, offers well-grown February Light Sussex Cockerels, from Capt Holford's Day-Olds; best obtainable; 10s. 6d. each.

Lovely Light Sussex Cockerels, from Extra Special Pedigree Strains; February March, and April hatched; 15s., 12s 6d. and 10s. each.—Alex Wilson, M.S.P.B.A., Bankhead Poultry Farm, Bucksburn, Aberdeen.

F. K. MAXTED, TEYNHAM, KENT.
Rhode Island Red and Light Sussex February 20th; Cockerels (W. Cook and Sons). Large strong birds, coming good colour; 12s. 6d. each. Also White Wyandottes of all ages; three months, 7s. 6d. each. Reared on unlimited range; sound and healthy. See S.P.B.A. Register, page xxxiv.

PHILIP CLAPHAM.

Three-Month Cockerels, Wyandotte and Buff Rock. Individual pedigrees, from 21s.; Pen pedigrees, from 10s. 6d. Reared free range. List free.—Sherriffs, Lyonshall, Herefordshire.

"SPLENDID SPECIMENS,

and I am delighted with them." So says a purchaser this week of my Cockerels. Rhodes (Golden), Light Sussex (Lister), White Wyandottes, Black Leghorns, and White Leghorns (Frank Snowden). Three to six months, from 10s. Pedigree supplied.—Captain Barnes, Kenilworth (Breeding Station under Ministry of Agriculture).

BREEDING PENS.

FOR SALE.

Genuine Typical Laying Stock, 1925 Pullets, for Breeding Pens, with magnificent cocks, fit for show pen; all sent on approval. Pen of Ten Pullets and Cock, £4 10s., or larger numbers quoted for, of Rothchild's Light Sussex, Cam's White Wyandottes, Barron's White Leghorns, Hunter's Black Leghorns, Schimnel's Barnevelders, Measures' Rhode Island Reds.—Mrs. Porter, Dishley Grange, near Loughborough.

White Wyandotte L2 Hens (1924), from Special Pens; records under 200; 10s. each; over 200, 12s. 6d. Other trap-nested Breeding Hens, 8s. Also Khaki-Campbell Breeding Pens.—Capt. Maxwell, Leiston, Suffolk.

BARGAINS.

W. LEGHORNS, R.I.R., L. SX.

Valuable Proved Pens, 70s., containing ten Hens, 1924, pedigree unrelated; 192 Cockerels, including Ransford-Golden and **Falkenstein direct.—Dr. Harbord, Detling Hill, Maidstone.**

EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH).

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Edited by TOM NEWMAN.
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UNDER ROYAL PATRONAGE + ALWAYS WINTER EGGS +

I.O.W.

Pedigree Wyandottes

Pedigree Leghorns

Growing Pullets Now Ready.

ANOTHER TESTIMONIAL.

Dorking, 25th May, 1926.

Dear Sirs,—Last year you supplied me with four Leghorns, with which I have been most pleased. Last month they laid 90 eggs. I am writing to know if you have any pullets of the same strain.—B.

The Firm with 12 Years' Experience.

SANDOWN, - - I.O.W.

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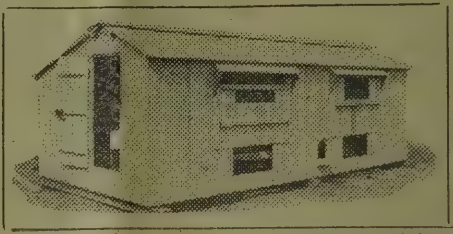

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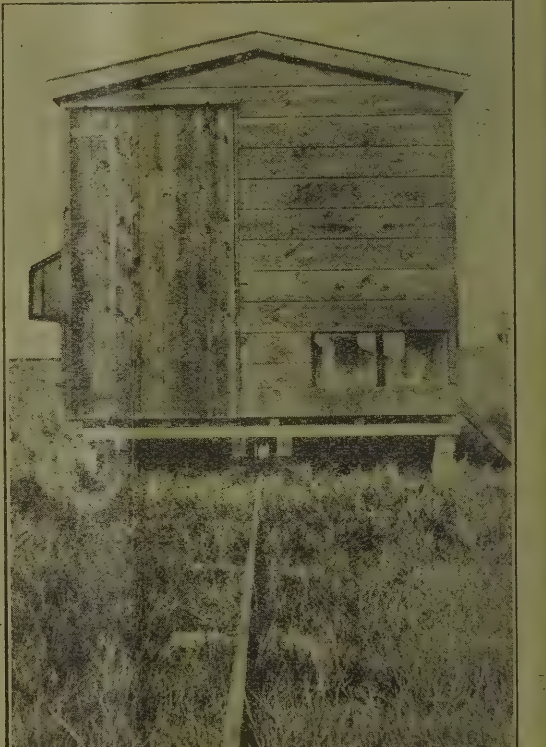

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EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association
WEDNESDAY, JUNE 23rd, 1926.

Editorial.

THE MOULT.

The approach of the moulting season brings numerous questions as to the management of stock during the moult, and equally numerous questions as to the feeding of precocious or early-hatched pullets, which are laying, or on the point of doing so, and which it is feared will lay a few eggs and then moult. The whole subject has been dealt with many times in these columns, and we shall not apologise for a repetition which may not be avoided.

It should be understood, in the first place, that the feather, instead of being an independent unit as is commonly believed, is, in reality, one feather of continuous growth, beginning with the down of the chick, which is the first portion of it. When a bird moults it does not "shed" the feather and grow a new one; what really happens is, the feather breaks off and a new part of it appears. **From this we may deduce that as the growth of feather is continuous, the rate of its growth determines the date of the moult, its rapidity, and its completeness.** The belief that the new feather "pushes" out the old is the mistaken one.

It is an accepted fact that poor producers moult early, and good layers moult late, although we must not forget that environmental conditions may cause a heavy layer to moult prematurely.

"What makes feather will make eggs" is an old adage, and a true one; it is also true that we find our best layers in the chicks which feather most quickly. We shall understand, however, that when production begins growth of feather with the heavy producer is much slower, food which nourishes it being diverted to the production of eggs. Thus we have the explanation of the early moult of the poor producer, and the late one of the heavy layer.

As to management during the moult, much depends on the condition of the bird when it begins to drop its feathers. We frequently find that pullets which have been producing heavily during the flush months lay fewer and smaller eggs towards the end of May. Soon they go out of production and the moult follows. If the birds are to moult well, and come through it quickly, they should never be allowed to get out of condition. The moult is a perfectly natural operation. We do not find wild birds get into the bedraggled state in which we find the domesticated fowl. A normally well-fed bird in good condition when it starts to moult will come through it without any change in the feeding; if pullets hang in the moult we should look for other causes beside the feeding. The addition of 4 per cent. linseed meal to the mash will be found advantageous, and if the birds are in under condition at the end of May, kibbled maize as the grain feed will keep them longer in production, and they will be in better condition when they do moult.

There are other points to consider. Many pullets moult badly because they are infested with lice or insect life in some form, and they should be carefully examined for these pests and treated for them, and it is most important that moulting birds should be able to find shelter from the blazing hot sun which we sometimes experience during July and August. So much advice is given as to exposure to cold and damp, that it is a little curious so little attention has been given to the injurious effects of exposure to blazing sunshine.

Heavy producers which are intended for the breeding pen are very frequently allowed to lay too long into the autumn or early winter in order that they may create some record. When they are wanted in the breeding pen they are very frequently not in laying condition, and often when they are laying their eggs are difficult to hatch or their chicks difficult to rear. They should be forced to moult in September, no drastic methods need be used, confinement to a warm house, and a complete change of diet will usually achieve the desired end.

Heavy breeds have a tendency to put on internal fat between the time they have completed their new plumage and renewed egg production. Little anxiety need be felt as to those which have started laying again, but close observation should be kept on those which have not. They should be given plenty of exercise, maize should be omitted from the ration, oats will be found to be a better feed for such birds. When we have said everything that can be said, the vital thing with regard to the moult is to have your birds in good condition during the moulting season.

FISH MEAL AND COCCIDIOSIS.

We have received the following with reference to Mr. Brain's letter, published in a recent issue, in which he stated that a type of coccidia in human beings, similar to that found in chicks, has been produced from the eating of herrings and their roes either on toast or bread and butter. He further said that fish meal, known to contain the red meat of herrings, including herring roes, has been fed to chicks and coccidiosis produced. We are not permitted to disclose the source of the following letter, but we can assure our readers that it is written by a well-known authority, and they can absolutely rely on it:—

> "Dear ———;—These coccidia in fish do not produce disease in man, nor in fowls nor chickens, so that there is no reason to suspect fish diet.
>
> The disease in fowls due to **Histomonous meleagridis (Amoeba meleagridis)** causes 'black head.' This disease is not to be confused with coccidiosis, which is another disease in fowls. The commonest coccidian in fowls is the Eimeria tenella, and this is spread from fowl to fowl by the passage oocysts in the fæces to the ground. Similar coccidia occur in grouse, pigeons and other birds.
>
> The two diseases in fowls—namely, that caused by Amaeba meleagridis (the correct name is Histomonous Meleagridis) and that due to Coccidiosis—have been confused in the past, and considered to be the same disease. They are, however, separate and distinct diseases of fowls. Often they may occur together, and hence the cause of the confusion."

BOARD OF AGRICULTURE FOR SCOTLAND EGG-LAYING TEST, 1925-26.

Report for the Seventh Period—1st to 28th April, 1926.

Bright invigorating weather was experienced during the greater part of the seventh period. Towards the end, however, a thick haze hung over the test ground, and, with an easterly wind, the atmosphere was somewhat colder. The general health of the stock was good. In the pullet section broodiness amounted to 9.48 per cent., and three ducks were in moult during the period. The total number of eggs produced in the four weeks was 10,620, an average of 20.99 per bird, as compared with 10,219, and an average of 20.12 last month. The average since the beginning of the test now stands at 100. The highest individual record for the month was 28 eggs laid by seven pullets.

The eggs laid by the four first mentioned were all of the first grade. Miss Harrison Bell's pen of Buff Rocks, No. 93, still holds first place in the test with a score value of 693.

There has again been an increase in the number of eggs produced in the Duck Section, the total for the period being 2221, an average of 24.41 per bird, as compared with 1819 and an average of 19.77 last month. The average since the beginning of the test now stands at 81.29. Mr. G. H. H. Simmons' pen of Khaki-Campbells, No. 7, still hold first place in this section with a score value of 582. Twenty-two ducks laid 28 eggs during the period. Five birds have notable sequences.

Egg Production of Leading Pens at end of Seventh Period—28th April, 1926.

Figures are Eggs and Points respectively.

Section 1. White Leghorns.—T. Baillie, Bute, 648, 618; J. Prentice, Uddingston, 737, 609; J. Tait, Uddingston, 597, 594.

Section 2. White Wyandottes.—A. Thomson, Avonbridge, 695, 681; Lady V. Astor, Meikleour, 695, 631.

Section 3. Rhode Island Reds.—Mrs. M. Logan, West Kilbride, 676, 675; I. Cooper, Newbigging Mill, Carnwath, 684, 663.

Section 4. Non-Sitters other than White Leghorns.—J. Huntly and Son, Coldstream, 730, 581; G. S. Inglis, Peebles, 563. 562.

Section 5. Sitters other than in Section 2 and 3.—Miss Harrison Bell, Welwyn, 776, 693; The Misses Davidson and Chisholm, Gollanfield, 749, 606.

Section 6. Ducks.—G. H. H. Simmons, Brimscombe, Glos., 649, 582; O. C. Brown, Appleby, Lincs. 616, 578.

Modern Poultry Feeding.

By TOM NEWMAN.

FINISHING THE PULLETS.

Miss Tillie has been kind enough to send us the following article which has been reprinted from "Everybody's Poultry Magazine."

It will be seen it confirms what has been so often urged in these columns during the last four or five years, i.e., the importance of pullets being in a plump condition when they are drafted into the laying houses in the autumn, and of maintaining them in bodily condition, throughout the year.

Our readers will rememb[illegible] how often we have advocated the heavier feeding during the short winter days, and also in the late spring when heavy producers have usually drawn so heavily on their bodily reserves:—

FINISHING THE PULLETS.

By Prof. Harry R. Lewis.

"Would you like to find a way to help to increase the total yearly egg production of your birds? Would you like to find a way, in other words, to make them hold up better in production through the summer and fall months? Would you, at the same time, like to find a way to overcome much of the going light and wasting away which is quite common in laying flocks along in the spring, especially after they have been through a heavy winter's lay? Would you like to find a way of overcoming much of the chicken pox and its related disorders which reap such a heavy toll from the poultry fraternity every year? Would you like to find a way of overcoming much malnutrition and low vitality which is so apparent in so many laying flocks? Surely you would. While the suggestion which I am about to make is not a guaranteed panacea for all of these ills, it has, nevertheless, proven itself to be a valuable aid in accomplishing these things which you so much desire.

WE ALL KNOW.

It is a fact, physicians and surgeons will tell you, that a human being, which is well nourished, in good normal condition of flesh, and is physically fit, so to speak, can withstand disease better, can stand up under heavy work longer, and is generally a better risk for the life insurance company. The experienced poultryman can tell you that flocks of laying hens which have been well grown, which are heavily pigmented with yellow in the fall, when they are put in the laying quarters as pullets, and which are fed and handled in such a way that they maintain maximum body weight, are bound to go through the laying season much better than are a bunch of pullets which have been improperly grown, incompletely fleshed, and which are allowed, through faulty feeding, to lose weight regularly throughout the winter. These known facts teach us a very important lesson in the handling of our birds. Now is the time to put this lesson into practical application. If you do so, I feel positive that your results this coming year will be far more satisfactory.

THE RELATION OF BODY WEIGHT TO PRODUCTION.

Our egg-laying contests, over a period of from eight to ten years, have taught you some very interesting lessons. One of the most important lessons is the relation which exists between body weight and egg production. It is a fact that a hen, along in the summer, after she has been through her first winter's lay, will cease to produce and go into a moult if she is allowed to get thin or down in body weight. Other things being equal, if she is kept in a good condition of flesh with some surplus meat and fat on her body, she will continue to lay well into the fall. This fact being known, the poultryman should, of course, strive to work out a feeding practice which will enable his birds to produce well, and at the same time store up the needed flesh and fat on her body, or at least avoid drawing on her body reserve from which to manufacture eggs. This is a fundamental truth in feeding and handling laying flocks for maximum production.

THE IMPORTANCE OF PULLET WEIGHT.

Now the important thing which concerns us is how to insure a well-fleshed condition on our layers throughout the summer and fall, after they have been laying heavily all winter. The feeding practice during the winter, of course, has a lot to do with it, but there is another step of greater importance, and that is, the desirability of having the pullets go into their laying quarters in September or October, heavily fleshed and heavily pigmented. Pullets which during the growing season have been subjected to epidemics of Coccidiosis or pullets which have been grown on bare yards with insufficient supplies of green feed, are apt to approach maturity with shanks, beak and skin only partially pigmented, and in some cases quite white. Furthermore, such pullets are bound to be down in body weight. It has been an observed fact that the weight which pullets possess when they go into laying quarters in the fall is very closely correlated with body weight, and the time they quit the following summer and fall. Good large pullets, well grown and carrying lots of fat, and well fleshed in all sections when they started lying in the fall, will always carry through the summer and into the next fall in better condition and laying longer than will pullets only medium fleshed when they start laying. The additional quarter of a pound, half pound, or one pound which one can put on the pullets before they start laying means that they will carry through just so much longer the next year; so this, then, is the object of finishing the pullets.

FINISHING THE PULLETS.

Finishing the pullets is just as necessary, and is done in very much the same way as you would finish a bunch of broilers or roasters, and it is just as essential. We know that you can only get your maximum price for roasting chickens and for broilers when they are well fleshed, full-breasted and yellow in all sections. It is even more important that the pullets be well fleshed and finished. Now how is this to be accomplished, you ask? It is very simple. About two or three weeks before the pullets are taken in off range, the probability being their combs are well developed, and some of them laying, proceed as follows:—Increase the grain ration very materially, giving them all they will clean up in two feedings a day, morning and night. Keep a growing mash before them all of the time, which contains twenty-five per cent. of yellow corn meal. A good formula is as follows:—Twenty-five per cent. of wheat mixed feed—if this is not available, equal parts of bran and middlings can be used to make up the same volume—twenty-five per cent. yellow corn meal, twenty per cent. ground hulled oats, ten per cent. gluten meal, ten per cent. oil meal, ten per cent. meat scrap. Keep this mash before the birds, and, in addition, give them some of this same mixture as a crumbly mash each noon, moistened with skim milk or semi-solid buttermilk. The grain ration during this finishing period can be reduced to almost straight-cracked corn. The addition of a little wheat is possibly desirable. Three or four parts of cracked corn and one part of wheat makes a good combination. Encourage the birds to consume all of the grain they will. These mixtures have a rather wide nutritive ration, and will be conducive to the formation of fat, and will at the same time slightly check the development of reproductive function, so that they will stand still, so to speak, in ovarian development, development of combs, etc. If this feeding practice is followed about 14 to 20 days, you will find that the pullets will put on anywhere from one quarter of a pound to sometimes as high as a pound in weight. This will be flesh and fat. They will be rounded out, their shanks, beak and skin will take on a much deeper yellow, and you have given these birds a maximum factor of safety, which will tend to keep them healthy and free from disease, and which will enable them to hold up in production longer, because of the fact that they will be able to hold up their body weight better. This is a simple thing to do, but a mighty important thing, and it should be done right now."

LEICESTERSHIRE COUNTY COUNCIL EDUCATION COMMITTEE.

COUNTY LAYING TRIALS.

Eighth Monthly Report for the period—May 3rd to May 30th, 1926.

During the period covered by this report there has been some slight reduction in egg production. This has been mainly among the heavy breeds, and is accounted for by the number of broodies that have passed through the broody coops, 30 birds having shown this seasonal instinct.

2,722 eggs have been laid during the month, an average of 19.03 eggs per bird, and during the 32 weeks the trials have been in progress 18,933 eggs have been laid, an average of 132.35 eggs per bird, and of this number 9,369 were special grade; 6,559 first-grade, and only 316, or 1.66 per cent., were non-scoring. All the birds continue to be healthy, and no deaths have occurred. Thirty birds have laid over 150 eggs in the 32 weeks, and 69 have laid between 120 and 149 eggs each in the same period. The highest individual score has been made by a White Leghorn with 190 eggs to her credit.

The positions of the leading pens are given below:—

Figures are Eggs and Points respectively.

Section A. Light Breeds (Five Birds).—Mrs. R. Crawford (W.L.), 734, 5727; Geo. Ryle (W.L.), 739, 5497; Crawford and Dowell (W.L.), 655, 4736; A. C. Moore (B.L.), 623, 4683; Geo. Price (W.L.), 623, 4635; H. B. Howe (B.M.), 643, 4489.

Section B. Heavy Breeds (Five Birds).—Mrs. E. Ball (R.I.R.), 719, 5501; J. M. Salmon (W.W.), 736, 5389; J. M. Salmon (R.I.R.), 700, 5353; H. B. Howe (W.W.), 718, 5285; S. Ryle (R.I.R.), 676, 5255; Geo. Ryle (W.W.), 664, 5173.

Section C. Any Breed (Two Birds).—B. J. Buckler (R.I.R.), 308, 2403; Miss Dear (R.I.R.), 275, 2243; H. Glover (W.L.), 277, 2190; S. Ryle (R.I.R.), 260, 2138; W. H. Stevens (R.I.R.), 258, 2058; J. T. Kidger (W.W.), 250, 1901.

The Cost of Running a Laying Hen.

A well-known poultry-keeper gives an estimate of commercial poultry-keeping per bird in "Eggs," the official organ of the Scientific Poultry Breeders' Association, dated 28th April, but he omits the important cost of housing. But in "Eggs," dated 7th April, he gives an estimate of housing 2,000 birds as £1,500, allowing 10 per cent. depreciation (we allow 12 per cent.). This would be 1s. 6d. per bird for a year, his cost would then be as follows :—

Food for one year	8s.	6d.
Labour, ditto	4s.	0d.
Replacements, ditto	2s.	0d.
Other expenses, ditto	1s.	6d.
Housing, ditto	1s.	6d.
Total cost per bird for a year ...	17s.	6d.

The profit on table cockerels and value of old hens are employed to reduce the cost of replacements. He states these figures are not a blind guess.

The actual cost of running a hen for a year on the farm of W. Hall and Son on the same lines as the above. At the beginning of the year 1925 we had 817 hens and pullets and 18 cockerels ; total, 835 birds.

Labour ...	£100	0	0	Cost per bird ...	2	4¾
Food	306	16	2	Ditto. ...	7	4¼
Housing ...	45	13	0	Ditto. ...	1	1
Replacements	23	6	5½	Ditto. ...	0	6¾
Other expenses	10	16	1	Ditto. ...	0	3
Total cost	£486	11	8½	Cost per bird ...	11	7¾

This £486 11s. 8½d. represents the cost of egg production.

Total number of eggs sold, 8,264 dozen.

Cost per dozen eggs sold, 1s. 2⅛d. approximately.

The following sum is charged to the Chicken Account :—

Bought six stock cockerels ...	£7	17	11
Bought 277 eggs for sitting ...	3	18	5
Bought Food	102	5	5
Labour	50	0	0
	£164	1	9
Less—			
Sales of hens and young birds	140	15	3½
Replacements total cost ...	£23	6	5½

Last year's accounts show that 797 cwts. of food was used, costing £409 1s. 9d. Total number of eggs produced, either sold or used for sitting at home, was 101,367. This works out at less than a penny per egg for food, without making any allowance for the food that was used for rearing young stock, which we place at a quarter, in which case 598 cwt. of food produced 101,367 eggs, i.e., 1769 eggs per cwt. of food or 1½ eggs per lb. of food.

In this account no charge is made for rent, as the land is fully planted with fruit, and the value of the birds' manure is estimated to be more than equal to any sum due as rent. Neither have I deducted anything for the good done by the birds in keeping the land clean from weeds and insect pests, which reduces cost of cultivation.

The declared value of eggs imported is about £15,250,000. The cost per dozen works out at about 1s. 6½d. wholesale, so that it will be seen that all these imported eggs could be profitably produced at home, and at the price we now pay the foreigner ; and automatically the number of table birds would also increase.

The above paper was read by Mr. Hall to sixty members of the Bexley Heath and District Allotments Association, who were accompanied by Mr. Snell, the Kent County Instructor.

WYE COLLEGE DUCK LAYING TRIALS, 1925-26.

The Trials commenced on November 1st, 1925, and extend over a period of 48 weeks. Each entry consists of five ducks bred in 1925, of which there were 145 entered in all. All the ducks are trapnested, and are run as one flock on free range.

The eggs are graded according to weight, viz.: A first grade egg is one which weighs 2ozs. or over. Second grade eggs are those which weigh under 2 ozs. These do not score, and are not included in the pen score in the record sheets, but are shown in a separate column as second grade eggs.

REPORT FOR SEVENTH PERIOD (April 18th to May 15th, 1926).

Weather conditions during this period have not been so favourable as last month. High and cold winds have prevailed. The average number of eggs laid per duck during the month has been 20.49, this brings the average to date up to 101.42.

The health of the birds throughout the month has been good, and no deaths have occurred.

The leading pens in the Breed Sections are:—

Khaki-Campbells.—Mr. A. N. Dickson's Pen, No. 17, 644 pts.; Mr. G. H. Simmon's Pen, No. 6, 631; Capt. R. A. Long's Pen, No. 2, 562.

Indian Runners.—Miss Harrison Bell's Pen, No. 26 (W.), 663 pts.; Miss Davidson and Miss Chisholm's Pen, No. 20 (F), 562; Messrs. R. A. and A. M. Johnson's Pen, No. 28 (W.), 552.

MIRFIELD AND DISTRICT POULTRY-KEEPERS' ASSOCIATION'S LAYING TEST.

REPORT FOR SEVENTH MONTH.

The Seventh Monthly period of the above test closed on May 9th. There has been one death during the month, this bird died from a growth in the ovary. The health of the flock is good—one bird is now in hospital. The following is the summary of the leading pens:—

Section 1—Light Pen (3 birds).—N. Firth, Esq. (W.L.), 2182 pts.; A. Mappin, Esq. (W.L.), 2114; E. Tate, Esq.* (W.L.), 1976; H. Cowgill, Esq. (W.L.), 1967; H. Buckley, Esq. (W.L.), 1927; Davey and Son (B.L.), 1662.

Section 2—Heavy Pen (3 birds).—Scott Bros.,* (W.W.), 3012 pts.; J. Raistrick, Esq. (R.I.R.), 1911; A. G. V. Ermen, Esq (W.W.), 1897; A. G. V. Ermen, Esq. (W.W.), 1837; F. Buckley, Esq. (R.I.R.), 1786; A. G. V Ermen, Esq. (R.I.R.), 1772.

Section 3 (Single bird, Light).—A. Blackburn* (W.L.), 769 pts.; H. Armitage (W.L.), 747; E. Saxton (W.L.), 711; E. Tate (W.L.), 708; C. F. Fox (B.L.), 695; G. Shenton (Anc.), 690.

Section 4 (Single bird, Heavy).—W. Saxton* (W.W.), 1045 pts.; Scott Bros. (R.I.R.), 736; Scott Bros. (R.I.R.), 716; J. Raistrick (W.W.), 703; J. Godfrey (R.I.R.), 699; Sykes Bros. (W.W.), 681.

* Winners of Monthly Ribbons.

1926-27 Test commences October 11th, 1926.

Contributing Factors to Success in Farming Poultry.

(Address given by Mr. John Dowden at the Western Counties Branch, S.P.B.A.)

The suggested subject of my address to you is "Commercial Poultry Farming," with special reference to the housing problem. I only propose to deal superficially with this subject, as I am personally of the opinion that this department of our business, like any other practical section of it, varies with the prevailing conditions in different districts, therefore it would not be fair for me to dogmatise on so vital a matter to a mixed audience such as I have here.

I feel certain that it is unnecessary for me to deal exhaustively with the elementary points necessary to the comfortable and correct housing of your birds. We all know, for instance, that the essential features of a poultry house are the greatest possible amount of light, adequate cubic air space, correct ventilation, and that it should be weatherproof.

The first of these points—viz., Light—is, to my mind, one of the most important and most necessary features of the house. To those of you who have had experience with artificial means of lengthening the working day of the hens, i.e., by introducing artificial light, it will be common knowledge that very great advantages are to be reaped by this practice, when carried out on practical and commonsense lines, and from these results it will be apparent that the more light you can admit to your poultry houses, the better will be your returns during that time of the year, which unfortunately in this country appears to be a lengthening one, when daylight is at such a premium.

We will now proceed to my next point, viz., that of cubic air space. I have visited many farms where the army hut type of house has been in use, and where the prevailing idea of the owners seemed to be that with the great cubic air space which these houses afforded, the necessity for ample ventilation was at least partially obviated. This is a great mistake. The extra cubic air space of a large laying house does not compensate for lack of ventilation.

In my own experience, and under the conditions prevailing in Sussex, I find that the army hut type of house is an admirable one for a laying flock, but I would here interpose a warning. Should any of you intend to erect houses of this design, then do not indulge in the present-day craze for the very large unit.

On my own farm at Heathfield we have tested in a practical way the merits and demerits of units of various sizes, from that of a dozen hens to houses containing 1,500 birds. We also have two houses which accommodate 750 birds each, and some which accommodate 300, but, despite the fact that labour is lessened, and the cost of housing per head slightly reduced, the best results, both in health and production, are with the moderate-sized unit in each instance.

On a farm where large units are operating it is more than ever necessary to keep a very watchful eye on the flock. Even with the most skilful care on the part of the attendant, it will be found that there are always a few unfortunate birds which suffer as a result of being in a large flock. Even if these do not sicken and become a source of danger to the remainder, they most certainly are not profit-earners. I have on many occasions taken small numbers of birds from a large flock and placed them in a small unit, and have been surprised at the way in which they have recovered their vitality, with a correspondingly heavy increase in production, even exceeding that put up by their more robust sisters left in the large unit.

In order that you may appreciate the importance that I attach to this point, I am prepared to state that if I were rebuilding my farm I would not have a single unit exceeding 150 birds. There is one point, however, of special interest to pedigree breeders, and which is in favour of a fairly good-sized unit, that is when trapnesting a number of pullets. We have one house, for instance, in which we trapnest 750 pullets, and I consider that those individuals which, whilst at the disadvantage of being in a large unit, can put up records of 240 and over, show in a very marked degree their superiority for commercial purposes over the pullet that will lay the same number of eggs in a unit of 25 or so, and the former are much more valuable birds as breeders. We find that our pullets which have yielded such high records in their pullet year in a large flock, when divided out into small units for their second year, very nearly approach the record of their first year.

The type of house that I use and recommend for a unit of 150 is the lean-to type, measuring 50 ft. x 12 ft., with as much glass as possible in the front of the house, which for preference should face South-East, and with some windows at the back of the house, between the floor and the back edge of the droppings boards.

Where grass range is plentiful, and such a house can be allowed one acre of ground, we have dispensed with the use of wire netting, but, of course, all poultry farmers are not fortunate in having the invaluable asset of a plentiful free range. We need fear disease far less if such were the case. In my opinion there is nothing so helpful in maintaining full and glowing health amongst your flocks than an abundance of clean pasture.

I have mentioned my partiality for the lean-to type of house, but I do not suggest that it is pre-eminently suited to the circumstances and conditions of all poultry farmers. It must be borne in mind that the climate of Sussex is very different to that of other counties further North. To them a house similar to the Lancashire cabin might with advantage be adopted, but I suggest that your decision as to the type of house that you intend to use, as with all other decisions relating to the lay-out and running of your farm, must be governed by your own judgment, gained by experience, and by weighing well the circumstances and your own particular environment. The one point which I would like you to bear in mind in connection with housing your birds is to maintain your units, both in chickenhood and in the adult stage, on a moderate scale.

I must here say a few words on the brooder house, since this comes within the purview of my subject. I am even stronger in my condemnation of the large brooder-house unit. I personally consider that the mammoth and fixed brooder house is responsible for many of the present-day troubles in chicken rearing. I advise the use of a portable brooder house, measuring 9 ft. x 6 ft. 6 in., in conjunction with a paraffin brooder, with a capacity (according to the makers' instructions) of 500 chicks. I pause here to point out that not more than 300 chicks should be put under a so-called 500 chick hover. I may say that the only exception to the small unit rule that I would make would be in the matter of incubation. A mammoth machine is a distinct advantage over a number of small ones, giving far better hatching results at infinitely less cost in fuel and labour. The mammoth incubator at "Heydown" has a capacity for 10,000 eggs, and costs only 7d. per day in fuel. From hatching time onwards, keep to the small unit.

The question of feeding might be said to be an equally important factor of success as that of housing. Personally, I am a very strong advocate of dry mash feeding for all birds, excepting those which are destined for table use. These latter on my own farm have wet food throughout their lives, consisting of Sussex ground oats, without any other admixture whatever. No grain need be given to such birds. In the case of dry mash fed birds, an excellent admixture consists of bran, sharps, maize meal, Sussex ground oats, and meat and bone meal, the exact proportions of each being decided by the season of the year, and the age and condition of the birds themselves. This mash should be always before the birds in hoppers, and should be supplemented by grain, composed of half wheat and half kibbled maize. When the birds reach the adult stage they need 12 lbs. of this per 100 birds per day in winter and 10 lbs. per 100 in summer.

Quality in foodstuffs is all-important, even more so than the actual formula. It is a great mistake to allow price alone to govern one's decision in the choice of foodstuffs. Every separate ingredient of the mash must be the very best obtainable.

I am of opinion that correct feeding has a far greater bearing upon the question of disease than is generally realised, and that most of the more serious diseases amongst poultry are indirectly brought about through incorrect or insufficient feeding. Many people have such a fear of over-feeding that they go to the other extreme, and embark upon a course of semi-starvation, which leaves the birds weakened, especially after spells of heavy production, and predisposes them to epidemic diseases, such as roup.

Having lightly touched upon a few of the general points in connection with housing and feeding, I will now proceed to discourse upon what I am sure is the goal of all of us, viz., "Success, and the method of its achievement."

I have previously intimated to you that you must use your own judgment in practical matters, such as housing, feeding, etc., but your judgment must be exercised in a very much wider field, if you are going to convert your hard manual labour and practical work into material gains. After all, the practical problems which present themselves for every-day solution to the poultry farmer are only subsidiary to the main issue, viz., the business management of his undertaking. It is only half the achievement of success to produce a first-class article, unless at the same time you take steps to dispose of it to the best advantage. The technicalities of our business may very quickly be acquired by a determined student, but unless he can bring rather more than this technical knowledges to bear in the way of business acumen, judgment and foresight, he will not achieve full success.

Judgment is the supreme necessity. It enables a man to assimilate knowledge, and to use it to the best advantage, to sift the opinions of others, gleaning from them that which is of use to him, whilst eliminating that which is not applicable to his own case. The poultry farmer should cultivate a sense of proportion, the ability to take a broad view, and to deal with the emergency of the moment in the light of its bearing on his complete scheme.

It is a dangerous, although unfortunately a very common delusion, that luck is a vital factor to success. This view frequently infects men with more ambition than industry. The man who intends to succeed will banish the idea of luck from his mind, accepting every opportunity, however small it may appear, which shows possibilities of leading to greater things. Such a man will extract the maximum of advantage to himself out of the most seemingly adverse circumstances. Observation and industry must join forces with judgment, or the latter quality may prove sterile. The confidence of experience will soon follow, and bigger strides may be made. Let it be your aim to gradually enlarge the scope of your operations. Do not be content to remain for ever a small producer. **Think Imperially, and produce on a large scale.** Plan your farm to permit of extension, particularly in respect of your hatching and rearing plant. Stick to one line of business until you have mastered it, and develop gradually from one line to another, as experience dictates and capital permits. It is so easy for premature ambition to launch men into daring schemes for which they have neither the resources nor the experience.

A knowledge and sense of the real value of an article is a quality without which no man should enter business at all, but if he possesses it even in a rudimentary degree, he can cultivate it in the early days, when his mind is plastic, and develop it until he has an intuitive perception of the real value as distinct from the face value of an article. Therefore develop the capacity for determining values. This will enable you to use discretion in making purchases, whether of stock, appliances or foodstuffs, whilst being able to secure the best possible market for your produce.

Special attention should be paid to the economic conduct of your business. Keep proper accounts, and critically examine your profit and loss account, before planning what you are going to do with the profits. Too many men spend their time in arranging channels for future profits which may not arrive, or only arrive in time to benefit some newcomer who has greater business acumen.

Many poultry farmers lay great stress on the value of consistency, by which they apparently mean making hard and fast rules, and abiding by them, come what may. This is a fatal error. Consistency in reason is a virtue, but, like many other virtues, if carried to excess it becomes a vice. The man who is consistent to this extent must be out of touch with reality. There is no consistency in the ordinary everyday course of events, and one's policy must be adapted to meet this. To apply a single rule to meet all the chances and changes of every day experience is to adopt a standpoint which must be founded on error, and thereby to sacrifice judgment and cast away the fruits of experience. The tendency in our industry is to carry consistency to excess, without an eye to the individual circumstances. Many leaders of our industry and advisers have at times been criticised for being inconsistent. I look upon this criticism as being a compliment in disguise. A man at central headquarters cannot be consistent, if he is to give wise counsel to people in widely different conditions, scattered all over the British Isles. It is better to follow facts to success than consistency to failure.

Cultivate the art of salesmanship, and remember that it is equally important to concentrate on cutting the cost of production as on securing the highest possible price. It should be our aim to market our produce at a price which brings it within the economic reach of the majority, and this policy will prove far more profitable in the long run than that of holding out for a price that only the few can afford to pay. Big businesses are not built up on inflated prices.

At this point I should like to say a few words on the question of marketing. So many poultry farmers send their eggs to the local market, and it is surprising what a large number of middlemen reap a rich reward by the simple process of transporting the eggs from the market to the retailing shops. I would most strongly advise all poultry farmers to get in touch with the retailer for the sale of their produce. It goes without saying that the latter has far more confidence in the eggs thus obtained direct from the producer than he has in those which have passed through the market, and possibly have become mixed in some cases with eggs which speak another tongue almost audibly. By dealing direct with the retailer this possibility is obviated. The higher price commanded in this way will be well worth the little extra trouble. There is all the difference imaginable in the business relationship, and in the confidence enjoyed between producer and retailer when the latter knows without quibble or doubt that the produce which he is handling is perfectly fresh, and has been produced under hygienic conditions. When the retailer has to make his purchases in a market, there may be present a lurking suspicion as to whether he really can rely upon the quality of the goods which he is buying. In my own case every single egg which leaves " Heydown " is guaranteed to have been produced within forty-eight hours of despatch. By getting in touch with the retailer direct, not only is the unessential middleman and his exorbitant profits entirely eliminated, but the aforementioned confidence is established, thus resulting in the producer reaping the just reward for having turned out a reliable article.

THE THREE COUNTIES SHOW.

At the invitation of the Western Counties Branch the S.P.B.A. had a Stand at the Three Counties Show at Gloucester, on June 8th, 9th and 10th.

On the Wednesday a Dinner and Conference was held at the Spread Eagle Hotel, over which Mr. F. E. Bacon, the President of the branch, presided.

There was a large attendance at the Show in spite of the fact that the weather was not altogether favourable, and we had the pleasure of meeting many of our members from the West at our Stand, and also making the acquaintance of many others.

The Poultry Show was excellent in itself, and the quality of the stock was above the average, but one formed the impression that some of the cockerels had developed too early sexually, and their value in the breeding pen would be unquestionable.

A visit to the Educational Stand of the Gloucester County Council proved highly interesting. The Poultry Department was under the supervision of Mr. L. G. Price, the County Poultry Instructor, who deserves to be heartily congratulated on the most interesting and instructive exhibit which he had, and there were few who could visit it without learning something to their advantage.

The Conference on the Wednesday evening was well attended. Papers were read by Mr. J. H. Dowden, Mrs. Newman, and myself. Mr. Dowden's paper is published in another part of this week's issue.

The one fault in respect to the S.P.B.A. Stand was that we were not able to secure so good a position as we would have liked, but that will be seen to at future shows.

The Food Purchase Scheme has aroused considerable interest in the West. Poultry-keeping in Gloucester particularly is making tremendous strides, and the quality of the stock one sees is extraordinarily good.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

A BREEDING QUESTION.

In a recent issue of " Eggs " I answered the following question in the Answers to Queries columns. Three readers have now written expressing great interest in the matter and have asked for a fuller explanation. Possibly the following will give them the information they require:—

My reader has White Wyandottes which lay plenty of eggs, but they are very small. He has also Barnevelders which lay large eggs, but they are so few that they are not a paying proposition. He wants to know the effect of crossing the Barnevelders with a White Wyandotte male, on egg size, colour and numbers and sex linkage, and asks the same question with the reverse cross—Barnevelder males to his small egg Wyandottes. Now in respect to size, we greatly under estimate the importance of the male. A male bird will transmit small egg size to his pullets, much more strongly than he will large egg size. When a large egg male is mated to small egg hens, over 60 per cent. of the progeny lay small eggs. When the reverse mating is made: that is, small egg sire to large egg dams, over 65 per cent. of the pullets from such a mating lay small eggs. Therefore, whichever mating is used, we cannot expect any wholesale improvement in the progeny, as far as size of eggs is concerned. That is a matter of careful selection and mating, always bearing in mind that small egg is dominant to large, and that if you mate a small egg male to a small egg female the pullets from such a mating will tend to produce even smaller eggs. Now as to the colour—brown egg is dominant to white. If you mate a brown egg male to a white egg hen, about 60 per cent. of the pullets from such a mating will lay brown eggs, but it is obvious this will depend, to a great extent, as to whether the pullet inherits most from the dam or sire. Therefore, if he mated the Barnevelder cockerel to the Wyandotte hens, the colour would be better on the average than with the Wyandotte pure, but not so good as with the Barnevelder pure; better for size on the average that the Wyandotte, but not nearly so good as with the Barnevelder. As to numbers, we should expect a good percentage of the pullets to lay better than the Barnevelders, but much worse than the Wyandottes. With this mating there would be sex-linkage; the pullets would be gold or buff, and the cockerels white or silver.

With the reverse mating—that is, Wyandotte male on Barnevelder hens, we should find that over 65 per cent. of the pullets may be expected to lay small eggs. As far as colour is concerned, we may expect that this will be the same as with the reverse mating. As to numbers, the average production should be considerably lower than with the pure Wyandottes. We should find the records of the pullets very variable, depending on whether they had inherited most from their dam or sire.

I do not think there is anything to be gained in making such a cross as is suggested in this question. Where these first crosses are made, as far as egg production is concerned, it is most essential that, if any good is to result, the parents on both sides should have good pedigrees.

CANNIBALISM.

A question on this trouble was answered a week or two ago in " Eggs," and again comes the request for more information. Since this query was answered reports of three more outbreaks have come to hand.

In the first case it broke out in the brood of 584 White Leghorns hatched on May 9th, described as " a healthy, lively lot without a sign of diarrhoea." The mortality during the first and second week was normal. The trouble began by picking at the vent, and finally pulling out the intestines and actually eating half the hind quarters if the victims were not removed in time. The feeding was wet mash of pure ground oats four times a day, and one feed of groats and cracked wheat. Every fine day they had a large grass run on virgin grass. On the same farm an outbreak occurred with 493 R. I. Reds and White Leghorns housed in a laying shed 30 ft. by 10 ft. The feeding was the same as before with liberty in a run fifty yards in diameter. There were no signs of sore or bare vents until the cannibalism started. No one locally was able to give my correspondent any information. It was suggested that it was (1) hereditary, and (2) was due to a deficiency in the food.

In another case the outbreak occurred with some 360 cross-bred chicks. The feeding in this case was entirely different, the mash consisting of biscuit meal, middlings, ground oats and meat meal, and there was an ample supply of fresh green food.

These outbreaks of cannibalism are fortunately rather rare, but they *do* occur, and we have to consider the probable causes.

I think we may dismiss the suggestion that it is hereditary, and consider the other possibilities. First as due to deficiencies in the food, notably iron. We may say that there were deficiencies in the first case; a mash of pure ground oats four times a day, with groats and cracked wheat as the sole food, would certainly be deficient in very many respects, in both its mineral and protein content, but whether we can definitely say that this was the cause of the outbreak, or not, I should not like to be too confident. Such outbreaks may be traced:—

(1) To a chick suffering from worms.
(2) To its passing blood in the excrement.
(3) To the accidental tearing of the vent.

These are the three most probable causes. Once the chicks get the taste for blood it is very difficult to check an outbreak of this kind. Sulphate of iron given in the drinking water is a fairly effective remedy, in some cases. In others I have succeeded in checking it by glutting the chicks with raw meat—bullock's lights minced up for preference. In any case it is wise to give a change of diet, and increase the amount of animal food. If a deficiency in the diet was the cause of the first outbreak, it was certainly not the case in the second. I think in such cases as this it is better to look for the simple solution that the complex. I remember a similar outbreak being caused in a flock of White Leghorn pullets some few years ago, and this was started in the first place by a pullet suffering from prolapsus of the oviduct. The losses were very heavy, and eventually we could only check it by doing as I have suggested with the chicks, that is, glutting the birds with raw meat.

FOXES AND THE POULTRY-KEEPER.

The following is copy of a letter I have received from one of our members :—

"Dear Sir,—I am having a most awful struggle with the Essex and Suffolk Hunt to get them to pay claims for fowls killed by the foxes. They insist on saying that no one sends in a claim as heavy as mine, and are suspicious as to their being correct. Also, they think we ought to net in our fowls. It would mean netting in 70 acres grass land, and about 300 acres after the crops are cut—an utter impossibility. They have never once paid my claim in full.

Some years we have had very little trouble—this year we have had a dreadful time. Between May 9th and 16th we had 37 hens killed (our fowls are the best strain we can procure, mostly R. I. Reds). Three days before Christmas I had four huge ducks taken. I sent in a claim for 5s. each for the hens and pullets, and 7s. each for the ducks. I received from the Hunt a cheque value £5. Of course, the hens are terrified and the egg yield goes down. I have not yet sent in a claim for the following :—On May 23rd, at our other farm, we had 18 hens killed by the fox. May 26th, 6 hens killed. June 1st, 16 hens and pullets killed.

As I have much difficulty in getting my claims paid, and besides I hate struggling with any class of the community, I have written and told the Hunt that out of self-defence we must kill the foxes and ask them not to hunt over our land. Is this not a matter for the National Poultry Council to take up?

Our hens are always carefully shut up at night."

I do not wish to make any comment upon this letter, but some time ago Mr. Edward Brown published his annual report, and reference was there made to the difficulty which had been experienced with some Hunts, and a few of our readers wrote protesting against Mr. Brown's remarks, and I am publishing this merely as an illustration of the trouble which is experienced by many poultry-keepers.

One cannot say that the writer of this letter has made any extravagant claim, and surely not so extravagant as the demand on the part of the Hunt that he should net in 70 acres of grass land.

THE BATH ROUP CASE.

LEMON v POLLARD.

JUDGMENT.

At the request of numerous readers, we are publishing the judgment delivered in this case by His Honour Judge Wynne James. It will be remembered that the plaintiff claimed £43 12s. 9d. for stock and goods supplied to the defendant, who counter-claimed £600 :—

I have already decided that on the sale of fowls by the plaintiff to the defendant there was an implied condition and warranty that these birds were reasonably fit to be caponised, fattened and sold in the market.

I have also found that there was a breach of the above condition and warranty owing to fowls or some of them at the time of delivery to the defendant suffering from the disease of roup. My judgment to-day is therefore confined to the amount of damages the defendant is entitled to recover from the plaintiff.

I find the following facts :—The defendant at the time of sale expressly made known to Lye (the plaintiff's manager) that the purpose for which the birds were required was that they should be caponised, fattened and sold in the market, and that the defendant relied on the skill and judgment of Lye in selecting birds fit for this purpose.

On the arrival of the plaintiff's birds at Beanacre Farm they were completely isolated from other birds belonging to the defendant which were on the same farm. The latter birds were healthy, and none of them contracted roup until they came in contact with those purchased from plaintiff. The plaintiff's birds were so isolated until August 15th. On this date the defendant, who had no experience of roup, was suspicious that the birds she had bought from plaintiff might be suffering from this disease. She sent a telephone message to plaintiff stating her suspicions, and asking him to call. The plaintiff, in answer to this message, came to the farm and saw the defendant. There is a conflict of evidence as to what was said and what birds were shown to the plaintiff at this interview. I find, as a fact, that defendant informed the plaintiff that she was suspicious of roup, that she showed him several of his birds which were unwell, and also a particular bird with a swollen head and cheese-like matter exuding from its eyes. All these birds were examined by the plaintiff—the symptoms of the bird with the swollen head are the strongest indications of roup. After their examination by the plaintiff the defendant asked him whether, in his opinion, the birds were suffering from roup. The plaintiff assured her that they were not so suffering. The defendant then asked the plaintiff whether it would be safe to mix his birds with others on the farm, and he replied that it would be safe.

After this interview, relying on the opinion given to her by the plaintiff, the defendant placed the birds she had purchased from him, together with other birds of her own in a pen surrounded by wire in her orchard.

I find that after the advice she had received it was not unreasonable to have done so.

In the same orchard, but outside the said pen, were other birds belonging to the defendant—chiefly pullets. The wire fencing round the pen was not sufficient to prevent the pullets outside the pen from picking up contagious matter infected with roup within the pen. After August 15th other birds within the pen became ill, and the defendant consulted Mr. Cockram, Poultry Instructor to the Wiltshire County Council. He visited the farm on August 28th, and informed defendant that the birds within the pen were undoubtedly suffering from roup. This was the first date that the defendant knew definitely that the birds had roup. Notwithstanding this knowledge the defendant most unwisely allowed her pullets to remain outside the pen in the orchard. The pullets afterwards became infected. The defendant has not satisfied me on the evidence that the pullets became infected prior to Mr. Cockram's visit, and I disallow the defendant's claim for damages in relation to these pullets.

On the conclusion of the evidence Mr. Tucker, on behalf of the plaintiff, submitted the following legal propositions :—

(1) That damages are limited to the difference between the value of the birds at the time of delivery and the value they would have had if they had answered the warranty at that date.

(2) That damages are limited to above plus damages to other birds belonging to defendant which were affected with roup. Such latter damage being limited to damage on August 28th, plus cost of disinfection.

(3) Irrespective of whether the recollection of Mrs. Pollard is correct as to what took place at their interview on August 15th, defendant can recover nothing for loss of her own fowls, because her action in mixing her own fowls with Mr. Lemon's was due solely to advice given her by Mr. Lemon on August 15th, and the resulting damage does not flow from the breach of warranty.

I ruled against the above submissions.

Mr. Tucker also asked me to give specific findings as to damages. I willingly do so.

I find

		£	s.	d.
(1)	Particulars of set off and counterclaim damages	£21	1	4
(2)	Ditto.	27	18	8
(3)	Ditto.	28	13	0
(4)	Ditto.	8	5	0

The above damages are assessed after taking into account cost of food.

		£	s.	d.
(9)	Ditto.	52	4	0
(10)	Ditto.	0	10	0
(11)	Ditto.	16	0	0
		£154	12	0

I assess the damage at £154 512s. As to £19 16s. parcel of the above £154 12s., I set off same against plaintiff's claim.

Judgment for defendant on counter-claim for £134 16s. Plaintiff to pay his own costs on claim and defendant's costs on counter-claim, also advice on evidence, and extra allowances to expert witnesses.

HARPER-ADAMS' AGRICULTURAL COLLEGE, NEWPORT, SALOP.

POULTRY LAYING TRIALS, 1925-1926.

Report for the Seventh Period.

The seventh period of the present trials terminated on May 15th, and a decline in egg production is shown in the results. A total of 28.521 eggs has been recorded in the Poultry Section by competing birds, as against 30.785 eggs for the previous period. The individual average is 19.3 eggs against 20.9 eggs.

In the Duck Section the production figure for competing birds was 2,964 eggs, with an individual average of 23.5, a silght decrease from the previous month.

The Championship Trial's Sections record no change in the leading positions for the period. In the Small Flock Trials a slight change occurs. Mr. G. Keith Simmons' pen of W. Leghorns in Section 1 moves to third position; Mr. E. Clough's pen of Light Sussex in Section 4 takes third position, and in Section 7 Mr. W. B. Farrar's pen of Buff Rocks also takes third position.

The Single Bird Trials also show changes in the third positions in Sections 1 and 11. Mr. B. Franklin's bird No. 10 (White Leghorn), and Messrs. H. Sutton and Son's bird No. 47 (W. Wyandotte) taking these relative positions.

Another important change is recorded in the Duck Section, Major J. G. Dugdale's pen of Khaki-Campbells taking second position by reason of the loss of a competing bird with a poorer record than the reserve bird.

The following is a summary of the leading positions at the end of the seventh period:—

SUMMARY OF THE LEADING PENS.

CHAMPIONSHIP TRIALS.

Section 1. Light Breeds.—G. B. Metcalfe (W.L.), Lechlade, 1395 eggs; Frank Snowden (W.L.), 1356; Tom Barron (W.L.), Catforth, 1306; F. A. Welch (W.L.), Cheltenham, 1339.

Section 2. Heavy Breeds.—E. Watson (W.W.), 1415 eggs; Tom Barron (W.W.), Catforth, 1340; Capt. D. W. Gunston, M.P. (W.W.), Reading, 1289; G. B. Metcalf (R.I.R.), Lechlade, 1205.

SMALL FLOCK TRIALS.

Section 1. White Leghorns.—Miss Helen Baylis, Stratford-on-Avon, 830 eggs; Lieut.-Colonel A. G. Eden, Bracken Cranswick, 797; G. Keith Simmons, Honiton, 792; Capt. J. Thompson, Shrewsbury, 757; Major J. G. Dugdale, Cirencester, 783.

Section 2. White Wyandottes.—Dr. A. Everson Harrisson, Daventry, 870 eggs; G. Keith Simmons, Honiton, 857; Frank Snowden, Keighley, 819; C. E. D. W. Freeman, Anglesey, 793; S. and T. Greenall, Grantham, 809.

Section 3. Rhode Island Reds.—Co-operative W. Society, Ltd., 829 eggs; Miss C. E. Roads, Bletchley, 799; R. Green, Preston, 807; Kingston Bagpuise P. Farm, Abingdon, Berks, 797; W. Mayor, Leyland, 732.

Section 4. Light Sussex.—F. R. Welch, Bewdley, 822 eggs; F. Rossall Sandford, Shrewsbury, 769; E. Clough, Uplyme, near Lyme Regis, 780; A. Hughes, Malpas, 759; Capt. A. A. Plimpton, Beverley, 766.

Section 5. Black Leghorns.—W. A. Lansley, Whitchurch, 759 eggs; R. A. Fawsett, New Radnor, 750; R. Rodwell, Nelson, 711; S. Street-Porter, Ely, 672.

Section 6. Any Other Light Breed.—W. Hamnett (An.), Blackpool, 765 eggs; H. Lynden Lemon (B.B.), Devizes, 740; Dr. R. B. Reed (An.), Colchester, 751; Co-operative W. Society, Ltd. (An.), Manchester, 725.

Section 7. Any Other Heavy Breed.—Miss P. Mills (B.R.), Bishop's Castle, 817 eggs; Capt. A. A. Plimpton (B.R.), Beverley, 761; W. B. Farrar (B.R.), Batley, 785; Mrs. Drew (B.R.), Basingstoke, 748.

SINGLE BIRD TRIALS.

Section 1. White Leghorns.—F. G. Mansell, Aldridge, 164 eggs; Chivers and Sons, Ltd., Histon, 151; B. Franklin, Shrewsbury, 149.

Section 2. White Wyandottes.—Frank Snowden, Keighley, 169 eggs; S. and T. Greenall, Grantham, 153; H. Sutton and Sons, Little Hoole, 158.

Section 3. Any Other Light Breed.—K. A. Crawford (W.B.), Dilham, 154 eggs; W. H. A. Heald (B.L.), Hellingly, 131.

Section 4. Any Other Heavy Breed.—A. Hughes (L.S.), Malpas, 176 eggs; Miss M. Lawrence (R.I.R.), Glos., 153; Tom Barron (R.I.R.), Catforth, 155.

Duck Section.—H. S. Godsmark (W.R.), Ashford, 1015 eggs; Major J. G. Dugdale (K.-C.), Cirencester, 982; S. E. S. Burnett (K.-C). Arbroath, 940; R. A. and A. M. Johnson (W.R.), Chalford, 930; Wilson Beattie (K.-C.), Rotherstthorpe, 913.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

H. H. (Lanarkshire) sends three samples of what the merchant tells him are Sussex grounds oats. "A" is 18s. per cwt.; "B," 17s. per cwt.; and "C," 14s. 9d. per cwt. Not one of these samples are "Sussex" ground. The merchant tells him that the difference in price is due to a greater quantity of the husk being removed from the dearer samples. As a matter of fact "H. H." no husk is ever removed from a pure "Sussex" ground oat—it is merely ground very finely. Both 18s. per cwt. and 17s. are uneconomical prices to pay, and, under the circumstances, if you are using these for adult stock, I would advise you to buy the cheaper sample at 14s. 9d. True, the husk is a little bit coarser, but the difference in the value does not warrant your paying a higher price.

H. C. (Linlithgow) asks for particulars as to treatment of tuberculosis in hens, and also how to apply the tubercular test for re-actives. I am sorry I cannot give him this information. It would be advisable for him to write to the Ministry of Agriculture, 10, Whitehall Place, S.W.1, for their pamphlet No. 78 on "Tuberculosis of Poultry." This will be sent post free for 6d.

J. A. (Hampshire) writes to say that she has perches for the majority of her chicks from eight to ten weeks old. They all have had straight breast bones at the time, but since they have developed a frightful dent in the middle of them. She supposes this is the result of too early perching, or is it possible, she asks, that it is a constitutional weakness? She also want to know whether the crooked breast bones will impair their laying faculties in any way, and would the same fault debar them from the breeding pen?—We have here a clear case of crooked breast bones due to faulty perching. I have always advocated the early perching of chicks, as when they are on the perches they breathe purer air and do not become overheated, and I would much rather a crooked breast bone than a damaged lung, but my correspondent should provide suitable perches, and these have often been described in these columns—namely, slater's laths nailed half an inch apart, nine or ten in a row, or more, and 12 to 18 inches from the ground. A little hay spread on these, and there will be no crooked breast bones. She need not fear that the fact that these pullets have developed these crooked breast bones will in any way impair their laying faculties, and it should not debar them from the breeding pen.

That, however, only applies to this particular case, as we are perfectly sure that it is not a constitutional weakness, but due to unsuitable perches, and an acquired character is not inherited.

R. C. B. (Co. Wicklow) has 700 laying fowls, 20 of which have had prolapsus. Of these 8 were 12. The following dry mash has been fed: 4 cwt. pollard, 1 maize meal, 1 Sussex ground oats, 1 bran, and 6 stone fish meal. He asks if this mash is too stimulating, and is it responsible, or partly, for the prolapsus? Would I advise a change, and, if so, what? Would it be unwise to breed from a fowl which has had prolapsus? He has been feeding his pullet chicks one wet mash in the day (at midday), but does not intend to continue this after maturity, but depend upon dry mash only, apart from grain, of course. He wishes to know at what age I would advise him to abandon the wet mash so as to cause the least harm to the chickens from the change. The mash would not be too stimulating normally. We must remember in the first case that we have 700 pullets here, and not 3 per cent. of them have suffered from this trouble. We cannot treat the flock for the individual. A very heavy producer may find such a mash as this too stimulating in the flush season. I could not advise my correspondent to change this mash because a few of his pullets have suffered from prolapsus. Neither should it be necessary to do so now that there will shortly be the seasonal decline in production. If this mash had been changed it would probably have resulted in a decrease in the egg yield. It would be unwise to breed from birds which have suffered from prolapsus, been treated and cured. With regard to the feeding of the pullet chickens, I would not give them wet mash at present. It would be far better to give them that wet mash when they are in production than at the present time, as if they have a good dry mash before them they should develop normally, particularly as they have plenty of range. It is not a question as to what age he should abandon the wet mash, but rather the condition and development of the birds, and of that my correspondent is in a better position to judge than I am.

C. L. J. (Johannesburg) writes that he has been reading in the Register the report of the Wellingham experiments, and as the breeding season in South Africa has just commenced, he would like my advice as to a substitute for dried yeast, dried milk, and soya bean meal. He can get ordinary bean meal at a reasonable price, also a sample of meat meal at 9s. 6d. per 100 lbs., but the yeast and milk would have to be imported, which would mean 100 per cent. on to English prices. Sometimes he has a limited quantity of skimmed milk which he used in his wet mash, but it is not sufficient for all.—This is rather a difficult proposition, and I cannot suggest any substitute for dried yeast, which, I may mention here, has been greatly reduced in price, and is once more an economic proposition. With regard to dried milk, the best thing to use in place of this would be fish meal, as it has a much higher content of lime phosphate than any meat and bone meal. Ordinary bean meal does not compare with soya bean meal, but we must make the best of it, and I think my correspondent had better make the mash as follows:—Bran 20 lbs., Middlings 45 lbs., Sussex Ground Oats 15 lbs., Meat Meal 10 lbs., Fish Meal 7½ lbs., and Bean Meal 5 lbs.; and I would recommend him to add to this at the rate of five ounces to every pound the mineral mixture which is given on page 72 of the 1926 register. He will please note here that I am recommending **five ounces to every pound.**

F. L. (Ireland.) If this hen has been ailing a month and you have treated as you suggest, it would be useless now to treat her for egg binding. I am sure the trouble is more serious than this, but you do not give me sufficient details. It would be far better to kill her and have done with it. You will one day learn the folly of attempting to treat a very sick hen. It is neither profitable nor wise. With reference to these precocious pullets which are now laying. I would use the following mash: 2 lbs. bran, 4 middlings, 1½ Sussex ground oats, ½ maize meal, and ½ fish meal. As grain feed give equal parts wheat and good plump white oats. Do not attempt to check production by under-feeding. On the contrary, give the birds all they will consume, so that there will be enough for both production and development. At present it is inadvisable to give them any maize. Later on you could do so, say at the beginning of September.

D. H. (Warwick) wishes to know why his little chicks are growing big wings. They appear to be all right until they are a month old, and then develop this big wing and die. I strongly suspect Coccidiosis, and it would be wise to send a chick for post-mortem examination, but there may be other causes of big wing—such chicks are often tubercular. Sometimes it is due to overheating in the brooder, bad ventilation, or malnutrition. All these causes my correspondent must take into consideration, and the real thing for him now is to find out the actual cause. Big wing in itself is only a symptom of many diseases.

A. B. W. (Isle of Man) writes:—"I have been very interested in the last two issues of 'Eggs' containing the interesting feeding experiments of the Werribee Research Farm, Australia. Doubtless you are aware that this type of feeding has been a great success with pigs. I was much struck by the plan of the intensive farm given by Mr. Malcolm. I ask your opinion if this method of feeding could be applied commercially to flocks of poultry kept under Mr. Malcolm's system, or, in fact, any system. I have noticed every summer that my poultry always go off their dry mash (your recipe), and take a lot more grain, especially maize. If this method was successful, work would be considerably reduced, and we should always have the satisfaction that the stock were getting just what they required. Do you think they would have a tendency to pile on fat? If you think it would succeed, give me a list of meals and grains to have before them continually all the year—then I will give it a trial. Enclosed find sample of Manx black oats. These oats are thought very highly of over here. The price is 17s. 6d. for 2¼cwt., and I would like to have your opinion on them.—I can only express an opinion as to this continuous feeding. In my view it could be applied commercial to flocks of poultry kept under any system. It is highly probable that by such means we could keep our stock in far better condition, as far as production is concerned, than by any other method, and to a large extent, it might possibly supersede the use of artificial light. As to the tendency to pile on fat—I do not think this would be the case with a highly productive flock as a whole. There would, of course, be that tendency with individuals, but we get that now with whatever method we feed. I am hoping the S.P.B.A. Committee will consent to an experiment on these lines during the coming winter. The following mash is what I suggest:—1lb. bran, 1lb. alfalfa meal, 4lbs. middlings, 1lb. Sussex ground oats, 1lb. maize meal, and 1lb. fish meal or meat and bone meal. As the grain feed two parts good plump white oats, one wheat, and one kibbled maize. This mash is, of course, always before the birds. The black oats sent me are nice plump ones, and the birds should eat them readily.

C. R. G. (Wheathampstead) has lost a number of chickens from two to three months old, and on opening them has found the intestines inflamed. The two parts of the bowels which branch off from the large intestine are in nearly every case, to some degree enlarged, and in one or two cases almost like a growth as large as one's little finger. My correspondent asks if this is contagious enteritis. That I am unable to say. Where cases like this occur the wisest plan is to immediately send chicks for post-mortem examination. The word enteritis is usually applied to infections of the small intestines. It is very difficult to distinguish between the different infections of the intestine of a living bird. There is usually marked diarrhoea with enteritis, but I shall not help my correspondent with anything I may say here. It is far wiser that he should send chicks for post-mortem examination.

C. H. C. (Canford) sends me a sample of what are called "Sussex" ground oats. As I have frequently said in these columns, the husk in a really good sample of Sussex ground oats is hardly perceptible. In this case it is very much so. With regard to the adult mash which purports to be:—Four parts sharps, one part bran, one alfalfa meal, one maize meal, one Sussex ground oats, and one meat and bone meal. Although all these constituents are present, I am of opinion they are not present in the proportions indicated.

R. S. (West Barnham) wishes to know whether corn feverfew and common Tansy are poisonous to fowls. A friend of his has heard that they were poisonous, and he would like to know for certain. I am sorry I cannot give this information, as I have never experimented with either of these herbs to see whether they were poisonous, and I have never heard of any birds being poisoned by them.

E. M. C. (Coventry) writes that an outbreak of Coccidiosis has occurred among one batch of chicks. The eggs (White Leghorns) were purchased on March 15th, and another batch on April 9th. My correspondent has never had any sickness on her farm until this outbreak among these pullets in April, and among these she has lost over 40 chicks from a batch of 83. All the chicks in the first-named batch appeared in the best of health, although from the same stock, so she cannot understand this outbreak, as all the chicks reared this season have received the same treatment. She asks: (1) Do I think it is possible the eggs were infected? (2) Will the survivors (pullets) run with pullets of the first batch without danger, as it is desired to put them together eventually? (3) Will it be safe to use the best of the cockerels from batch No. 1 as breeder, as she has some very good White Leghorn hens, and she hopes to make a breeding pen of these. My correspondent also asks me what symptoms she would observe if a doubtful sample of dry chick feed was fed to chicks, as one of her helpers was feeding a sample, and saw the chicks drooping, and until the post-mortem report came to hand thought the chick feed was responsible. In answer to her questions:—(1) It is possible that the eggs were infected. I am afraid there remains no doubt as to the possibility of a carrier hen infecting her eggs. In answer to her second question. We have to put survivors into two categories—those which have never contracted the disease, and others which have had such a high resistant power or have had such a slight attack that they have survived. The latter, of course, would be carriers, and the probability remains of their infecting the soil. There would always be this danger, and there would be likely to be a recurrence next year. My correspondent should carefully go through the surviving chicks, and any which show signs of being anaemic or stunted in growth she should kill and burn at once. It would be quite safe to use the best of the cockerels from the first batch to mate to her own good Leghorn hens. The sample of chick feed sent me is sound enough. If any doubtful symptoms were observed, the first thing would be to examine the food itself, and see whether it smells sweet. If only people would use their nose as well as their eyes in examining chick feeds and meals there would not be so much trouble in this respect. As regards symptoms, there would possibly be a full crop, slight diarrhoea, with the usual symptoms of sick chicks, such as drooping wings, moping etc.

POST-MORTEMS.

A. B.—The post-mortem examination of the W. W. hen showed that she was affected with an intense anaemia, due in my opinion to the excessive number of ascarid worms, and the millions of lice with which she was infested. For the worms, steep 1 lb. of chopped tobacco stems or cheap shag tobacco in sufficient water to keep it covered for two hours, and mix the whole of this in a small mash which should be given to the birds after a long fast; two hours after, give another mash containing 11 ounces of Epsom salts; the above quantities are for 100 birds. During the treatment they should be kept in, so that the excreta may be collected and destroyed by burning, and the floors should then be very thoroughly disinfected. The treatment should be repeated after an interval of a fortnight. For destroying lice, sodium fluoride is a most satisfactory agent, and is best used in solution, three quarters of an ounce being added to each gallon of tepid water, and the birds submerged in this, with the exception of the head, but this should be dipped under several times. To combat the anaemic condition produced by these parasites, an iron tonic is recommended, a useful one being sulphate of iron ½ lb., dilute sulphuric acid ½ oz., water 1 gallon, and of this stock solution, two tablespoonfuls should be added to each gallon of the drinking water daily.

C. G.—The post-mortem examination of the W. L. hen showed the cause to be peritonitis, the result of perforation of the uterine walls in numerous places by minute ulcerations. Close examination of these ulcerations showed that they were due to the presence of minute round worms of which we were unable to determine the species, neither have I been able to find any mention of such infestation in the authorities. There were no parasites in the intestinal canal, so it could not have been a simple case of migration. Three species of Trematode (flat worms) have been found in the uterus, and have, by some, been held responsible for the production of egg tumours, but I can find no mention of round worms. The other organs were quite healthy, and she was in good lay. I am afraid that I can offer no suggestions as to treatment, as I can see no hopes of bringing a vermicide into contact with the parasites in the uterine walls.

TRANSPORT.

Dear Mr. Newman.—In view of the serious position which was created during the General Strike, and the position which is now assuming serious proportions owing to the Coal situation, I venture to make a few remarks which, I hope, will be in time to prevent another fiasco with regard to the marketing of supplies of poultry and eggs.

During the general strike, supplies were held up all over the country, of both poultry and eggs, through lack of transport facilities. The termination of the strike brought a tremendous glut of supplies, which in turn caused a set-back in prices.

This position was not created in the milk trade which has been insured against such events by previous transport organisation.

The S.P.B.A. is surely the most powerful body of egg and poultry producers in this country, and it seems little short of a tragedy that through lack of a little organisation, and more particularly co-operation by districts, the members should be faced with the fact that, should another upheaval occur, they will be forced to stand and see their capital and labour being wasted.

A little work would ensure the members, by districts, being catered for in the way of motor transport, because, of course, it would be impossible for any individual salesman to send motors out in every direction, unless it were that the Society had a central depot or central salesman in the largest cities.

I trust these few remarks may be useful, because at the time of writing the various industries of the country are slowly being crippled through lack of coal. Without being a "Dismal Jimmie" one is forced to recognise the fact that railways absolutely depend upon coal to keep their wheels turning, and in succession, poultry farmers depend upon the railways for the marketing of their produce.

"MERCHANT."

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.
APPLICATIONS FOR MEMBERSHIP.

Price, M. P., The Grove, Taynton, Nr. Gloucester.
Henry, A. W., Hill Green, Toms Lane, King's Langley, Herts.
Japp, D., c/o Lt.-Col. Sir Chas. McGrigor, Bake, St. Germans, Cornwall.
Rigby, Major O. B., The Wells, Bromyard, Worcester.
Clarke, Mrs. H., Rough Hill, Birlingham, Pershore, Worcester.
Williams, Mrs. R., Arosfa, Trostrey, Nr. Usk, Monmouth.
Gould, Miss M. G., "New Leaze," Stourton Caundle, Stalbridge, Nr. Blandford, Dorset.
King, Frederick C., Market Street, Highbridge, Somerset.
Worham, Rev. Bede, The Friary, Chilworth, Guildford, Surrey.
Barrow, George, "Hazeldene," 92, Liverpool Road, Ditton, Widnes, Lancs.
Hinton, Mrs. L., Oak Farm, Ashley Green, Berkhamsted, Herts.
Whittaker, E., 84, Burnley Lane, Chadderton, Oldham.
Woolner, Joe, Red Lion P. Farm, Revesby, Boston, Lincs.
Ross, Alex. J. J., Rossallan P. Farm, Fossoway, Kinross-shire.
Mildmay, Mrs. W. St. John, Thornby Grange, Northampton.
Bocquet, Mrs., Oorgaum P.O., Mysore State, South India.
Templeton, R., Stratheden, Lower Warberry Road, Torquay.
Laidman, Rev. W. E., Kirby Hill Vicarage, Boroughbridge, Yorks.
Hanson, W. L., "Westhaven," Highters Heath Lane, Holly-wood, Nr. Kings Heath, Birmingham.
Nishart, Miss M., Briar Cottage, Forfar.
McFinan, Capt. J. A., Barn Mills, Carrickfergus, Co. Antrim.
Burt, H., 6, Railway Cottages, Southwick, Nr. Brighton.
Hitchen, Edgar, 106, Swanshurst Lane, Moseley, Birmingham.
Archard, A. E., Wick Manor Farm, Hannington, Highworth, Wilts.
Gameson, Mrs. L., Church Street, Bishop's Castle, Salop.
Rickards, H. M., Horseshoe Meadow, Cholderton, Hants.
Housby, R. P., The Poultry Farm, Chatton, Northumberland.
Barlow, Chas., School House, Goostrey, Nr. Holmes Chapel.

OUR FRONT COVER.

At the Harper-Adams' Conference, which is to be held on August 10th, 11th and 12th, it is announced that an address on "Woolly Rabbits, and Rabbit Wool—Angoras—a Possible Sideline for Poultry-keepers," will be delivered by Dr. J. B. MacDougal, and no doubt this will be listened to with considerable interest by poultry-keepers who are present.

Lady Rachel Byng may almost claim to be the pioneer of "Woolly Rabbits" in this country. At all events, her articles, which first appeared in "Eggs" some months ago, attracted our attention to the possibilities of the Angora Rabbit as a Commercial proposition. Since then her ladyship has done much to popularise the breeding of Angoras throughout the country, and has aroused an interest which seems to be ever increasing.

Although many of our readers are probably not breeders of rabbits, it is possible that the photographs on our front cover of three young stud bucks bred by Lady Rachel Byng will do something to arouse their interest. The Angora rabbit may surely be described as a breed combining utility with beauty.

Food Purchase Scheme.

ALL PRICES ARE SUBJECT TO MARKET FLUCTUATIONS.

May we state that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns, but the undermentioned are special items. Price list will be despatched to any member, if application is made to this office.

Referring to the odd cwts., which are now supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown. This is to cover the extra expenses and handling which the one cwt. business involves. If the total order for one firm amounts to 5 cwts. and over, this extra charge will not be made.

Will all members ordering under this scheme kindly note that orders received by second post on Saturdays cannot be dealt with until the following Monday.

All orders accompanied by cheque should be sent to Mr. Tom Newman, Secretary, Rudgwick, Sussex.

SPECIAL OFFERS.

FISH MEAL: F.O.R. GRIMSBY and TYNEMOUTH—5 cwts. and upwards, at 16/9 per cwt.; under 5 cwt. orders at 17/6 per cwt.

UNEXTRACTED DRIED YEAST: F.O.R. GRIMSBY and HULL—At 20/3 per cwt. for 5 cwt. orders; 21/- for orders under 5 cwts.

FISH MEAL, with the following analysis:—

OIL ... ... 4.5 per cent.
ALBUMINOIDS ... ... 55.60 per cent.
PHOSPHATES ... ... 16.18 per cent.

Prices F.O.R. LONDON

Under 5 cwts.	18/9 per cwt.
5 cwts. orders and upwards ...	17/9 per cwt.

FISH MEAL	17/9	F.O.R. SWANSEA.
" "	16/6	F.O.R. MIDDLESBRO'.
MAIZE GRITS	10/3	F.O.R. LONDON.
" "	10/3	F.O.R. IPSWICH.
MAIZE GERM MEAL ...	8/3	F.O.R. LONDON.
" " " ...	8/3	F.O.R. IPSWICH.
S. G. OATS	12/6	F.O.R. SUSSEX.
MEAT AND BONE MEAL	16/3	Carriage Paid.
MEAT MEAL	15/9	Carriage Paid.
ALFALFA	12/6	F.O.R. LONDON.
"	11/9	F.O.R. BRISTOL.
BONE FLOUR	9/6	F.O.R. LONDON.

LIMESTONE GRIT: F.O.R. BRADFORD (three grades)—Poultry, Medium. Chicken. In minimum orders of 5 cwts. at 2/6 per cwt.; single cwt. included in order for other goods from Bradford, at 2/9 per cwt.

FISH MEAL:—
OIL ... ... under 4 per cent.
SALT ... ... under 3 per cent.
ALBUMINOIDS ... 55/60 per cent.
PHOSPHATES ... 15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—
ALBUMINOIDS ... 35/40 per cent.
FATS ... ... 10/15 per cent.
PHOSPHATES ... 25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—
ALBUMINOIDS ... 57/62 per cent.
FATS ... ... 10/15 per cent. at 15/6 per cwt.

F.O.R. MIDDLESBROUGH.

F.O.R. DERBYSHIRE.—Limestone Grit, Poultry and Chick Size, at:—5cwts. orders and upwards at 2s. 6d. per cwt; single cwts. at 3s. per cwt. Limestone Flour, 5cwts. orders and upwards at 4s. per cwt.; single cwts. 4s. 6d. per cwt.

COD LIVER OIL, Carriage paid:—1 gall. drum at 6s. per gall.; 5 gall. drum at 5s. per gall.; 10 gall drum at 4s. 3d. per gall. Also packed in 40 gall. barrels. Drums inclusive and non-returnable.

	MASHES					CHICK FEED		MIXED	S.G.	FISH	MEAT	MEAT & BONE
	Layers	Growers	Breeders	Chick	Fattening	No. 1	No. 2	CORN	OATS	MEAL	MEAL	MEAL
Liverpool	11/-	11/-	12/-	12/-	12/-	17/-	15/-	13/3	15/-	20/3	19/-	15/-
London	11/6	11/6	12/6	12/9	12/6	17/9	16/3	14/6	13/6	17/6	...	13/6
London	11/-	11/-	12/-	12/3	11/9	17/3	15/9	13/3	...	...	...	...
Leith	10/3	10/3	10/9	11/3	11/3	16/3	15/9	11/9	13/-	18/9	...	13/3
Leicester	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	13/6	19/6	...	13/9
King's Lynn	11/-	11/-	11/6	12/3	11/9	17/3	15/6	13/-	15/-	18/9	...	14/-
Belfast	12/-	12/-	12/6	13/6	12/6	17/9	16/9	12/6	13/3	19/3	14/9	12/6
Bristol	11/-	11/-	11/9	12/6	11/9	17/9	15/9	14/-	13/3	17/9	...	12/9
Southampton	11/6	11/6	12/6	12/6	12/-	17/9	15/9	12/-	14/-	19/9	..	13/9
Plymouth	12/-	12/6	12/6	14/-	11/9	19/-	16/9	13/3	15/9	20/9	...	16/9
Aberdeen	11/3	11/3	12/6	12/6	13/-	16/6	15/9	...	12/6	17/6	...	12/6
Harrogate	11/6	11/6	12/3	12/9	12/9	17/6	15/3	...	13/6	20/-	...	13/6
Glasgow	12/-	12/-	12/-	13/-	12/-	17/-	15/-	12/3	13/6	19/3	17/3	15/3
Staffs	10/9	10/9	11/3	11/3	11/3	17/6	15/-	13/-	13/6	19/-	...	13/3
Kettering	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	13/6	19/6	...	13/9
Bradford	11/6	11/6	12/3	12/9	12/3	17/6	15/9	13/3	14/-	17/6	18/-	14/-
Birmingham and Wolverhampton	10/9	10/9	11/6	11/6	11/-	16/9	14/6	11/9	12/6	18/9	...	13/9
Greenock	11/-	11/3	12/-	12/9	13/-	17/9	15/9	...	15/-	20/3	15/9	15/3
Tewkesbury	11/3	11/3	12/-	12/9	12/-	18/-	15/-	11/9	13/3	20/3	...	13/6
Bolton	11/-	11/3	12/3	12/3	12/-	17/-	15/3	13/-	13/6	20/3	...	14/-
Middlesbrough ...	11/3	11/-	11/3	12/3	12/-	17/3	16/3	12/6	13/6	16/6	15/6	12/9
Mid Sussex	11/3	11/-	11/6	12/3	11/6	17/3	15/3	13/-	12/6	19/6	17/6	17/-
Sussex (East) ...	11/6	11/9	12/6	12/-	12/3	17/6	15/-	...	12/6	21/-	...	14/-
Sussex	11/6	11/6	12/6	12/6	12/6	18/-	15/3	13/-	12/9	19/6	...	18/-
Essex	11/-	11/6	11/9	14/3	...	17/9	15/9	...	13/6	...	...	...
Birkenhead	10/6	10/6	12/-	11/-	12/-	17/-	14/3	12/9	12/6	19/6	...	13/6
Isle of Wight	11/9	12/-	13/6	15/-	...	18/6	17/6	12/6	16/-	21/-	...	15/-

It would be of very great assistance if members when ordering would always **STATE STATION** they wish goods despatched to, also their **NEAREST DEPOT.**

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING FRIDAY, JUNE 18th, 1926.

GRAIN AND FEEDING STUFFS.—Limited offerings of British wheat sell at fully recent prices, the average quotation being 13s. 8d. per cwt. Imported is in moderate demand, and prices generally record little alteration on the week, No. 1 Manitoba averaging 14s. 4d. per cwt. Moderate offerings of home-grown feeding barley sell at about late rates, while foreign is in quiet demand and slightly cheaper at most markets. English oats are very scarce and maintain recent prices, but imported, with a dull inquiry, occasionally sell in favour of buyers. Argentine maize is slightly cheaper at all markets except Hull, where quotations, owing to an improved demand, have advanced 2d. per cwt.

British bran is reduced in price at London and Liverpool, and coarse middlings at the same towns are also quoted at lower rates, but coarse middlings at Bristol are in better demand and 5s. per ton dearer. Meals mostly sell at late rates, but at some centres both barley and maize meal are cheaper on the week. Oilcakes generally meet a quiet trade, and reductions in price have occurred at most markets, especially at London, where quotations are from 5s. to 12s. 6d. per ton lower on the week.

MILLERS' OFFALS.—Bran (British): Bristol, £6 Hull, £5 7s; Liverpool, £5 10s; London, £5 2s. Broad Bran: Hull, £6 7s; London, £6 10s. Middlings—Fine (Imported): London, £7 5s; Coarse (British): Bristol, £5 5s; Hull, £7; Liverpool, £6 15s; London, £6 5s. Pollards (Imported): Bristol, £6; Hull, £5 10s; Liverpool, £5; London, £5 10s. Rice Bran: Bristol, £6 10s; Liverpool, £6 10s; London, £5 15s. MEAL.—Barley Meal: Bristol, £9 10s; Hull, £9 8s; London, £9 15s. Maize Meal: Bristol, £9; Hull, £7 18s; Liverpool, £8 2s; London, £8 15s. Maize Meal (S. African): Bristol, £8; Hull, £7 15s; Liverpool, £7 12s; London, £8. Maize Germ Meal: Hull, £7 10s; London, £7 10s. Maize Gluten Feed: Bristol, £9 15s; London, £8 10s. Maize Cooked Flake: Hull, £10; Liverpool, £10; London, £10 5s. Locust Bean Meal: Bristol, £9 5s; Hull, £9 10s; Liverpool, £9; London, £9. Bean Meal: Bristol, £13; Hull, £11 17s; London, £12. Fish Meal: Bristol, £20 10s; Hull, £18 10s; Liverpool, £18; London, £17 15s.

EGGS AND DEAD POULTRY.

Eggs are decidedly weaker, arrivals of all kinds being considerably in excess of requirements. Business remains on the quiet side for dead poultry, and, except for best quality birds, values continue to depreciate.

Week-end Prices—Eggs (per 120): British, 11s 0d, 9s 3d; Irish (extra selected), 10s 9d; Irish (selected), 9s 6d; Danish (18 lb.), 14s 3d; Danish (15½-16 lb.), 11s 3d; Dutch, brown, 12s 6d; Dutch, mixed, 11s 3d; French (brown), 12s 3d; French (Normandy), 10s 3d; French (Brittany), 9s 0d; Belgian,, 10s 3d; Polish, 8s 6d, 7s 3d.

Dead Poultry (per lb.): Fowls—Surrey, 2s 2d, 1s 10d; Irish, 1s 6d, 1s 4d; Others, 1s 11d, 1s 8d. Ducks, 1s 6d, 1s 3d. Geese, 1s 3d, 1s 0d.

EGGS.

Per Doz.—Ashford: First, 1s 3d; Second, 1s 2d. Birmingham: First, 1s 1¼d; Second, 1s 0d. Bridgwater: First, 1s 3d; Second, 1s 0½d. Chelmsford: First, 1s 4¾d; Second, 1s 3½d. Colchester: First, 1s 4½d; Second, 1s 1¾d. Doncaster: First, 1s 4d; Second, 1s 3d. Dorchester: First, 1s 2½d; Second, 1s 1¾d. Exeter: First, 1s 0d. Hereford: First, 1s 0d. King's Lynn: First, 1s 3d: Second, 1s 1d. Llandilo: First, 1s 0d. Mold: First, 1s 2d; Second, 1s 0d. Newport (Mon.): First, 1s 2d; Second, 1s 1d. Norwich: First, 1s 4d. Oswestry: First, 1s 1d. Penzance: First, 1s 0d; Second, 11d. Saffron Walden: First, 1s 4¾d; Second, 1s 3½d. St. Ives (Hunts): First, 1s 4½d; Second, 1s 2¼d. Salisbury: First, 1s 1½d; Second, 1s 1d. Skipton: First, 1s 5d. Swindon: First, 1s 3d; Second, 1s 0d. Truro: First, 11d. Welshpool: First, 1s 2d; Second, 1s 1d. *Carlisle: First, 1s 3d. *Derby: First, 1s 3d. *Ipswich: First, 1s 4d; Second, 1s 2d. *Lincoln: First, 1s 3d. *Shrewsbury: First, 1s 0d. *York: First, 1s 5d; Second, 1s 4d.

FOWLS.

Per lb.—Birmingham: First, 1s 8d; Second, 10d. Doncaster: First, †5s 0d; Second, †4s 6d. Exeter: First, 1s 6d; Second, 1s 3d. Hereford: First, 1s 8d. Llandilo: First, 1s 10d; Second, 1s 3d. Newport (Mon.): First, 1s 8d; Second, 1s 2d. Truro: First, 1s 7d. Welshpool: First, 1s 6d; Second, 1s 4d. *Derby: First, †5s 9d; Second, †3s 6d. *Ipswich: First, 1s 6d. *Lincoln: First, †5s 6d; Second, †4s 0d. *Shrewsbury: First, 2s 0d; Second, 1s 9d. *York: Second, †3s 6d.

DUCKS.

Per lb.—Doncaster: First, †5s 0d. Exeter: First, 1s 3d: Second, 1s 2d. Hereford: First, 1s 4d. Llandilo: First, 1s 10d; Second, 1s 4d. Welshpool: First, 1s 6d.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. † Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, June 23rd, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

Subscriptions should be sent to Mr. TOM NEWMAN, The Beeches, Rudgwick Sussex.

Editorial Matter and Correspondence to the Editor, The Beeches, Rudgwick, Sussex.

All communications with regard to Advertisements should be addressed to Mr. S. H. Burles, "Eggs," 94, Farncombe Street, London, S.E.16. Telephone: HOP 894.

NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for every-one concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

FOOD PURCHASE SCHEME.

IMPORTANT NOTICE.

MEMBERS OF THE S.P.B.A. ARE ADVISED THAT, IN ORDER TO FACILITATE DELIVERY DURING THE STRIKE, IT MAY BE NECESSARY TO RAIL GOODS AT OTHER DEPOTS OF THE RAILWAY CONCERNED, WHERE THE PROPER DEPOT IS UNABLE TO ACCEPT THEM.

WE TRUST THAT MEMBERS WILL LEAVE IT TO US TO USE OUR DISCRETION IN THIS MATTER, AND EVERY CARE WILL BE TAKEN TO SEE THAT ANY EXTRA CHARGE MADE BY THE COMPANIES IS NOT EXCESSIVE.

CHESHIRE COUNTY LAYING TRIAL, 1925-26.

REPORT FOR EIGHTH MONTH (29th April, 1926, to May 29th, 1926).

The flock average for the month is 17.6 eggs per bird. The average for the light breeds is 18.2, and for the heavy breeds 17.2 per bird. Two birds in the light breed section did not lay. Thirteen birds were broody. One died and one was sick.

SUMMARY OF LEADING PENS.

Figures are Eggs and Points respectively:—

Light Breeds.—A. Dixon (W.L.), 21, 160; Mrs. N. Viney (W.L.), 19, 150; Mrs. Viney (W.L.), 28, 161; Mrs. E. Johnson (W.L.), 21, 151; Mrs. E. Johnson (W.L.), 21, 142; A. D. Tobler (W.L.), 5, 129.

Heavy Breeds.—E. Paterson (Buff Orp.), 14, 147; Mrs. Mortimer (W.W.), 22, 162; J. Hignett (W.W.), 21, 145; J. Riley (W.W.), 22, 142; R. Howard (L.S.), 19, 139; W. Travis (W.W.), 13, 131.

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EGGS

THE OFFICIAL ORGAN OF
THE
SCIENTIFIC POULTRY BREEDERS ASSN.

(Founded in 1912 by RANDOLPH MEECH).

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Edited by TOM NEWMAN.
Price TWOPENCE.

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Six Months „ „ 6/4
Three Months „ „ 3/3

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JUL ? ? 1926
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PEDIGREE RHODE ISLAND REDS

Individually Hatched
Cockerels of
Good Type and Colour.

Trap-nested Breeding
Hens and Pullets.

Hen No. 32—603 eggs in
3 years. Never broody.

Weight of egg 2½ ozs.
Weight of hen 6 lbs.

April 23rd, 1926.

Rosetta Poultry Farm,
Rosetta, Natal.

Dear Madam,

Your R.I.R. Cockerel arrived on the farm to-day; he is really a grand bird, true to type and colour, and I am highly satisfied with my purchase. I will recommend you to my friends, and hope to import again from you in future.

Yours faithfully,
G. HOURQUEBIC.

Bred and owned by:—

Miss N. B. MADDISON

Breeder and Exporter of Pedigree Rhode Island Reds

BROOKSIDE —— DANE HILL —— SUSSEX.

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(The Calcium Salts.)
The Stockyard Minerals

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"SALCA," 14/- cwt. 7/8 ½-cwt., 7lbs. 1/4.
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½cwt. upwards Carriage Paid if not stocked by your dealer 7lb. 2/- and 2/1.

DIRECTIONS IN EVERY BAG.

Manufactured by
CLIFFORD de KUSEL
10, Station Yard,
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and 'SALCA' X
For Poultry, Pigs, Cattle, Rabbits, Caries, Goats, etc.

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'Heydown' Pre-Eminent Strains
are the business man's strains.

Money invested therein will prove a sound investment.

A few really excellent individually recorded 1925 hatched hens are now available in our five varieties.

W.L. B.L.
R.I.R.
W.W. L.S.

Also a few 1925 and 1926 hatched cockerels from progeny tested hens.

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"Heydown," Heathfield, Sussex.

"ECLIPSE" POULTRY HOUSES.

Will be on view at
STAND No. 285,
ROYAL SHOW, READING,
JULY 6th—10th.

Two No. 2 and Two No. 6 Houses supplied to the Hon. Mrs. Naylor, Leighton Hall, Welshpool.
Fullest particulars of the manufacturer—

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Station: Harling Road, L.N.E.R.
Telephone: East Harling 5.

EGGS

THE OFFICIAL ORGAN OF THE
Scientific Poultry Breeders' Association

WEDNESDAY, JUNE 30th, 1926.

Editorial.

INTENSIVE POULTRY-KEEPING.

AN INTERESTING LETTER.

We have received the following from Mrs. J. B. Badley. It is of extreme interest, as it throws more light on the problem of intensive poultry-keeping, and indicates a solution :—

> "Dear Sir,—The following are my experiences with two flocks of laying hens, kept intensively during last winter, which may be of interest to you.
>
> In each flock there were 120 birds, and in one 90 of these were second-year hens. The houses measured 42 ft. x 12 ft., were well lighted both back and front, and had ridge ventilation. All the windows were of the louvre type, and could therefore be shut or opened according to requirements.
>
> The greatest care was taken with the feeding, particularly with regard to minerals. Dry mash, consisting of the following, was before the birds all day :—4 middlings, 1 bran, 1 alfalfa meal, 1 Sussex ground oats, 1 maize meal, and 1 meat and bone meal (parts are by weight) ; also 1½ lbs. of charcoal and 3 lbs. of the mineral mixture which has often been given in 'Eggs' was added to every cwt. of mash. As much maize as the birds would eat was fed at night. In addition, oyster shell grit was fed in hoppers, and every day a large feed of thousand-headed kale was given. (The kale was grown on land which had been heavily limed.)
>
> The birds appeared to keep in excellent health. There were no colds or disease of any kind, with one exception. I began keeping them in on October 1st, and all went well until the end of November, when a pullet which had been laying heavily developed what I took to be layer's cramp. I put her in a coop in an open-fronted shed, and in a fortnight she recovered and soon laid again. After about three weeks laying she went down on her legs again, and this time I found she had got a bad kink in her breastbone ; she recovered again but several more followed. From Christmas onwards there were always about four hens down about the same time. By March there was hardly a pullet with a straight breastbone, and a large number of the two-year-olds which had stood their first year allright (when they were kept semi-intensively) had got kinks. During January I began to have complaints of thin shells, broken in transit, and during February quite 10 per cent. of the eggs were broken in the trapnests, and I was afraid of an outbreak of egg-eating. At the beginning of February I increased the number of mash hoppers, as I was afraid the birds might not be eating enough of it, and were therefore short of minerals. Egg production increased, but the shells became worse. I persevered for another month, and then let the birds out ; they had then been kept in for five months. In four days breakages almost stopped, and at the end of a fortnight I had no more trouble.
>
> I have written all this at length because I want to make the case quite clear ; I cannot see there was any deficiency in the ration, and the health of the birds proves that the housing was all that was required. I feel sure that the trouble was due to a deficiency of the ultra-violet rays. It seems that without these the birds cannot absorb their food properly, the minerals in particular. They can still lay and keep in good condition except for their bones and shelling eggs. The amount of ultra-violet rays needed must be very small, or the birds would not recover so rapidly. I intend next year to replace half the bottom row of windows with vita glass and try again, as I think the intensive system is the ideal one—at least in winter.
>
> I am very interested in your experiments with breeding stock. I am very much inclined to think that lack of minerals is one of the chief causes of bad hatchability. This year for the first time I have used the mineral salt mixture for the breeding pens, and, although hatching has always been good, it has been much better than before. If you can suggest any other cause for thin shells and leg weakness, I shall be glad to hear of it."

Those of our readers who are sceptical as to the possibilities of the intensive system may be inclined to regard this letter as one more nail in its coffin, some may look upon it as "proof positive" that it is impossible to keep poultry in health and production under such a system, but we venture to say that, so far from that being the case, this letter is distinctly helpful, that it indicates to a very large extent the cause or causes of previous failures, and with the newer knowledge we may yet achieve a success which will demonstrate that for commercial production the intensive system is superior to any other.

Mrs. Badley's experience is typical of others. It has been demonstrated that a deficiency of the ultra-violet rays renders impossible the proper assimilation of the calcium salts, hence we get a ricketty condition, described by our correspondent, a condition which coincides with experience on the S.P.B.A. farm this season. The problem of leg weakness with early-hatched chicks is one which for years we have been trying to solve. It has been attributed to wooden floors, to over-feeding, to lack of green food, to top heat, and to bottom heat, to too much heat and too little, to too dry an atmosphere, to a deficiency of mineral salts, and many and various are the remedies which have been tried to overcome what has been thought to be the immediate cause without success. During the past season less complaints of leg weakness with early-hatched chicks reached us than in any previous season, and this we believe due to a very large extent to the information which was published in these columns, of the importance of direct sunlight as a means of combating the trouble. It should be mentioned that on the S.P.B.A. farm we have experienced no trouble with leg weakness with chicks this season, not a single case has occurred, but we had the same trouble with the adult stock as Mrs. Badley describes, and steps are already being taken to see how this can be obviated in future ; the necessary alterations to the intensive house are already being made.

The most interesting part of Mrs. Badley's letter is that which tells us of the kinks in the breastbones of the pullets and the second year hens. It is a little difficult to understand this, as we should expect the cartilage would have hardened into bone, and we don't quite see by what process it became so soft as to become "kinkable." We are perfectly well aware that if an animal is not absorbing sufficient lime it may draw upon its skeleton. There are many examples of this, and we know the bones may become very brittle, but for them to become so soft as to develop a "kink" is rather remarkable.

LAINDON LAYING TEST.

Section 1—Light Breeds (5 Pullets).—R. Cooke (W.L.), 532 eggs; H. Maycock (W.L.), 573; L. J. Willis, 524.

Monthly Certificate: H. Maycock.

Section 2—Heavy (5 Pullets).—L. Potter, 521 eggs; Mrs. Fowler, 457; F. Freeborn, 450.

Section 3—Light (Single Bird).—A. Fox, 131 eggs; C. Newman, 126; S. Stock, 114. Monthly Certificate: A. Brown.

Section 4—Heavy (Single Bird).—J. A. Howarth (W.W.), 150 eggs; Miss Grubbe (R.I.R.), 132; J. Eccles (W.W.), 117.

Monthly Certificate: C. Chapman.

Section 5—Any Breeds—Gift.—W. Dillenz (R.I.R.), 148 eggs; Miss Grubbe (R.I.R.), 142; E. Mybrea (R.I.R.), 133.

Monthly Certificate: E. Mybrea.

First-Class Certificate for highest individual score for month: Miss N. Grubbe, 27; value, 3/0½.

Modern Poultry Feeding.

By TOM NEWMAN.

YEAST.

Yeast is once more an economic proposition. There has been a considerable drop in the price which rendered it prohibitive to the poultry-keeper, and as its value in the ration is undeniable, this is welcome news. A member writes to know what "makes its value" for an analysis, and a good laying and breeding mash containing it.

First, then, as to its composition. This is as follows:—

Albuminoids	45.94
Oil	0.60
Carbohydrates	36.22
Fibre	0.93
Mineral Matter	8.38
Moisture	8.73

Now as to what makes its value. It will be seen that it has a high protein content, and experiments carried out on the Continent show that 90 to 95 per cent. of the total dry matter is digested, and in some cases as much as 96 per cent. of the protein. Furthermore, it was observed that, in addition to the actual food value, it has tonic and stimulative properties which promote the digestion and assimilation of other foods. It is certainly an appetiser, and is rich in the vitamin, water soluble "B." But when I first recommended it as a poultry food some years ago, I was unaware of this, and introduced it primarily because of the value of the protein and the other properties mentioned above. The total food units are 153, but that may be very misleading, as we might use the method of calculating these to prove wheat straw was a better food than full milk.

Now as to laying and breeding formulas. These are as follows:—

Layers.	Breeders.
1 Bran.	1 Bran.
1 Alfalfa Meal.	1 Alfalfa.
4 Middlings.	4 Middlings.
1½ Maize Meal.	1½ Sussex Ground Oats.
1 Sussex Ground Oats.	½ Maize Meal.
½ Dried Yeast.	½ Dried Yeast.
¾ Fish Meal.	½ Fish Meal.

The parts are by weight, and the mashes can be used wet or dry.

A correspondent writes:—

> "Should one always keep to a 1:5 ration for poultry feeding. If the above ratio is correct, is it quite immaterial what food is fed, provided that the one to five ratio is maintained in the composite?"

In answer to this question, the 1.5 ratio is a sound one to work to. It is sufficiently wide for all purposes. As to the second part of the question, the answer is most emphatically NO. It was a common belief years ago that you could arrive at a balanced ration by working to a 1.5 or 1.4 ratio, and it was not until the fallacy of this idea was pointed out in these columns that poultry-keepers realised what a mistake they had been making. My correspondent might, for example, arrive at a 1.5 ratio by simply using blood meal and rice, in the necessary proportions, but no bird could exist on such a ration for any length of time, because of the deficiency of mineral salts. He must understand that to work out a balanced ration, it will be necessary for him to know the constituents of the food which he is using, and have some idea of their value.

WHALE MEAL.

Some years ago we exhibited at the Dairy Show a sample of whale meal. It was a dark brown substance, very oily, with a strong smell, which was not very pleasant. It was only shown as a matter of interest, although its possibilities as a poultry food were discussed. We soon came to the conclusion that it was not suitable for that purpose. Considerable progress has been made since then, and we have now a firm offering whale meal as a poultry food, which will compare favourably with any animal protein on the market. It is claimed, too, that it has a vitamin content 20 times stronger than the vitamin fresh butter, but as I have heard of no experiments in this direction, it is impossible to confirm this. The samples submitted to me are remarkably clean and dry, with a low oil content, richer in protein than the average sample of fish meal. It has the following analysis, and it should be remarked that the oil is a beneficial oil. It must not be compared with that of fish meal:—

ANALYSIS:

Protein	58.60
Digestible Carbohydrates ...	14.4
Beneficial Oil	4.6
Phosphates	11.5
Salt	0.9
Moisture	9.6

Experiments with pigs have proved it to be an eminently satisfactory food, and at present it has this advantage over fish and meat meal that it is a more stable article. It is, of course, known that whale meal is an article of human diet, and was the "biltong" which was supplied to native labourers. There is every reason to believe that whale meal will be a very valuable addition to our list of poultry foods. There is no fear of its tainting the eggs, or upsetting the digestive system of our birds—a fear that is always present except with the best known brands of fish or meat meal. It has one advantage over all our animal protein foods—the process of manufacture does not necessitate the application of any high degree of heat, and thus the inherent properties of the raw material are retained entirely unimpaired, and I may add that no chemical solvents whatever are used in the manufacture.

OUR FRONT COVER.

Miss N. B. Maddison is one of the most successful lady breeders of R. I. Reds and Light Sussex. We have had the privilege of visiting her farm on several occasions, and have been much impressed with the conditions under which the stock are reared, and of the quality.

While R. I. Reds may be termed her speciality, she is also a highly successful breeder of Light Sussex and White Leghorns. This year she has had a remarkably good hatching season, and the young stock have been reared in the woodland on entirely fresh land, conditions which are so favourable to healthy development. Type, colour, and size of egg, with good records, Miss Maddison has always contended are absolutely essential to the utility breeder if he is to maintain his position, and she has been wonderfully successful in her tial to the utility breeder if he is to maintain his posi- stock. This year she has a number of individually hatched cockerels of excellent type and colour, from tested parents, for size of egg and records.

Much as we admired the Reds, we must admit that Miss Maddison has been equally successful with her Light Sussex, which were very typical and fine specimens of the breed.

Her reputation as a breeder has brought her orders from Canada, South Africa, and India, and her further orders are now booked for South Africa and Rangoon.

In the Laying Tests, in addition to her winning the S.P.B.A. Test she has also held the first position in the Yorkshire Test all this year, and second and third position in the Championship section at the National Test up to the end of April.

The photograph of the hen on the front cover will give our readers some idea of what Miss Maddison is attempting to breed. It will be agreed that for a hen with this record she is a fine specimen of her breed.

It is pleasing indeed to find that Miss Maddison is so well maintaining in the Dominions the reputation of our British Stock, for on more than one occasion we have received complaints of stock exported by British breeders.

WORCESTER LAYING TEST.

Leading Pens at end of Seventh Month

Section 1. White Leghorns.—Worcs. P.F., 632 eggs; W. Pound, 624; P. R. Welch, 616.

Section 2. White Wyandottes.—G. E. Hanley, 674 eggs; W. E. Morris, 672; Mrs. Edmondson, 652

Section 3. A.O.V. (Light Breed).—R. M. Voce, 525 eggs; Capt. Spencer Churchill, 515; B Lloyd, 491.

Section 4. A.O.V. Heavy Breed.—P. R. Welch, 607 eggs; E. Owen, 586; W. P. Drew, 539.

Section 5. A.O.V. Heavy (Single Bird).—Mrs. Owen, 143 eggs; Mrs. Owen, 143; R. J. Weeger, 142.

Section 6. A.O.V. Light (Single Bird).—W. Rutter, 139 eggs; Capt. Boyle, 127; Major Luke, 100.

Section 7. A.O.V. Pure-Bred Duck (Single Bird).—Worcs. P.F., 121 eggs; Miss Hancock, 90; W. F. Loxley, 90.

HANTS COUNTY LAYING TRIALS.

REPORT FOR EIGHTH PERIOD, ending May 26th, 1926.

Figures are eggs and points respectively:—

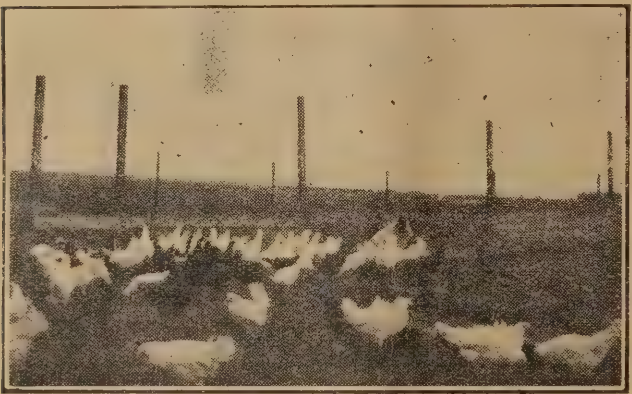
Section A.—Messrs. F. and C. Brundett (W.L.), 585, 4270; F. C Holdaway (W.L.), 577, 4059; F. C. Holdaway (Pen 2) (W.L.), 553, 3680; Capt. H. Zambra (B.L.), 505, 3678; Capt. R. Mackenzie (W.L.), 502, 3594; Mr. B. King (W.L.), 512, 3508.

Section B.—Miss W. W. Clarke (R.I.R.), 600, 4232; J. M. Thompson (W.W.), 481, 3321; Mrs. T. F. Cordery (W.W.), 437, 3169; Lord Wandsworth Agric. College (L.S.), 461, 3156; Mrs. Guy Harper (R.I.R.), 550, 3156.

Scientific Poultry Breeders' Association.

Full particulars of membership will be sent by return on application to the Secretary, Mr. Tom Newman, The Beeches, Rudgwick, Sussex.

The photograph which I have received from Mr. G. Dixon, of Southport, is of a few of his White Leghorn pullets, and was taken on 31st May when the oldest pullets were exactly twelve weeks old. They have been reared from six days old on the experimental formula which I drew up at the request of the Council for the Wellingham experiments.



Mr. Dixon informs me that the pullets, which were twelve weeks old, were weighed on the 3rd June, and were exactly three pounds average weight (he has kept his letter back purposely to give me this information), while some of the R.I. Red cockerels hatched on the same day as the pullets weighed 3½ lbs. at twelve weeks old, and he asks if I do not think this is very good. He has a lot of cockerels (White Wyandotte and R.I. Red) weighing a good 3½ lbs. at twelve weeks, and the others have been of an extraordinary weight for their age.

This is a most satisfactory result, but I do not wish to attribute it wholly to the feeding. There must have been good management, and the stock in the first place must have been good and sizeable.

AIREDALE KILLS NINETY-ONE HENS.

For the following cutting taken from the "Nottingham Evening Post," we are indebted to Mr. W. H. Teat. It is of interest as being one of the very few cases where judgment has been obtained against the owner of the dog :—

AIREDALE'S NIGHT OUT COSTS ITS OWNER £40.

The story of an Airedale dog killing sixty-four fowls in one night and worrying many more, which subsequently died, was told at the Oldham County Court recently.

Harold Clarke, a poultry farmer, of Dershaw, Saddleworth, sued a neighbour, Harry F. Stafford, for £40 damages.

For the plaintiff it was stated that on March 26th an employee found sixty-four fowls dead, and defendant's dog, covered with blood, was then in one cote worrying a hen. The next day the fowls were all suffering from fright, and twenty died. In all ninety-one dead fowls were claimed for, at an average cost of 8s. each, and in addition plaintiff estimated his loss in egg production at £10.

Judge Spence Hogg gave judgment for the plaintiff for £40 and costs.

HOMEOPATHY.

In response to the request of two or three of our members that the writer of the letter on the above subject would tell them what homeopathic medicines she used in the drinking water to increase the resistant power to disease amongst small chicks, I have received the following letter :

> "Dear Sir,—With reference to the paragraph in the last number of 'Eggs' concerning homeopathy, the medicines I used for chickens suspected of B.W.D. were Arsenicum and Baptisia. I used the ordinary tincture, the dose was 5 drops to every 20 chicks in one day's water supply. The medicines were given on alternate days. They were prescribed by a homeopathic chemist, to whom I described, as far as I was able, the various symptoms of the trouble ; he judged that these medicines should act both as prophylactics and remedies. It would be interesting if they could be tried in a genuine outbreak.
>
> I successfully checked an attack of gapes with cina, though I was unable at the time to remove the chicks to fresh ground. I cannot claim to have had much experience in treating fowls homeopathically, as until now I have been fortunate in the health of my birds, but I live on a farm where, for many years, we have used this method for sick animals, with consistently good results, and I feel sure that, properly understood, it would prove of the greatest value to poultry-keepers. Very striking results have been obtained in the prevention and cure of roup, with spongia, which is the sovereign remedy for diphtheria and croup in children. Where there are outbreaks of colds, sneezing, etc., either in summer or winter, Arsenicum or Gelseminum are indicated. I have never known them to fail to effect a cure. The medicines are easily administered in water, or wet mash, where they are absolutely tasteless ; they are not expensive and have no harmful after effects. Of course, the **Homeopathic** preparations of

the different drugs **must** be used. Two books on this subject can be obtained from the Homeopathic Publishing Company, 12a, Warwick Lane, E.C.4: "Poultry Sense," by Dr. Pursell, at 6s., and the "Poultry Doctor," at 4s. 6d. The first one I have not seen, the other is useful, but, having been written some years ago, when so much less was known about the diseases of poultry, it is sometimes rather vague. Probably any good homeopathic chemist could prescribe if the symptoms were accurately observed and explained; the Materia Medica of Homeopathy is so large that it should be possible to find the right remedy for any trouble. I hope these scraps of information may prove useful to some of your readers."

THE BRITISH BARNEVELDER CLUB.

The Committee of the above club, at a meeting held on June 16th, decided to have ten classes at the Club Show at the Crystal Palace, when nine challenge cups will be up for competition.

The presentation of three more challenge cups was announced, two being Point Cups and the other a cup for the breed at the National Laying Test.

It was decided to give one Special at this Laying Test and one at the Harper-Adams' Laying Trials.

A scale of points and a schedule of maximum and minimum weights for addition to the standard was agreed upon to be recommended to the annual general meeting for adoption.

A programme of support of summer shows in the form of guarantees, specials, etc., was approved.

Particular attention is called to this since very considerable expense has been incurred by the club to ensure representative classes under club judges.

It is hoped that members will support these shows as freely as possible, and that other breeders who are in any doubt as to the correct appearance of the breed will carefully observe the placings in the supported classes.

It is to be noted that competition for specials is confined to those who are members when entries for any particular show close.

E. D. BRODIE, Hon. Sec. B.B.C.

MR. F. W. WAIT.

Our readers will hear, with regret, that Mr. F. W. Wait finds it necessary to retire from active participation in poultry farming.

Pressure of business demands his undivided attention, and as Mr. Wait can do nothing half-heartedly he has been very reluctantly compelled to give up his poultry farm at Burton Joyce.

The sale takes place on Thursday, July 8th.

It is some three years ago since I visited the farm, and I remember so well Mr. Wait's enthusiasm, so I can strongly sympathise with him, knowing what a wrench it will be for him to part with the stock which he has bred so carefully for so many years.

As a member of the Council of the S.P.B.A., he has done splendid work for the Association, and we can rest assured that his interest in it will not abate.

KEIGHLEY AND DISTRICT BRANCH OF S.P.B.A.

The next monthly meeting will be held in the Temperance Hall, Keighley, on Wednesday, July 7th, at 7.30 p.m. A good attendance is desired. The handbook presented by the Yorkshire Federation of Poultry Societies will be distributed. Any member unable to attend may have their copy on forwarding postage to the Hon. Sec., Mrs. Wilson, Minorca Farm, Denholme, Bradford.

BRITISH BREEDERS AND RUSSIA.

Mr. Frank Snowden informs me that he despatched 550 day-old chicks to Moscow. These are to be sent to various farms in Russia for foundation stock, with a view to building up a first-class line of pedigree layers.

The transaction has certainly been an interesting one, as the order was for stated numbers of chicks from every pen of breeders which he has listed. Each chick was to be marked by numbered leg band, and pedigree in duplicate supplied with each selection of different breeding. The time of departure from Kildwick Station was specified, together with a detailed time-chart of connections from Croydon per Imperial Airways to Moscow via Berlin, showing a period of 40 hours by air. Leaving Mr. Snowden's farm at 10 a.m. Monday, they are due at their respective destinations at approximately 12 p.m. Wednesday.

Mr. Snowden's Russian clients inform him that they are starting their first annual laying test on November 1st next, and English breeders are asked to send over pens for competition.

We certainly have reason to believe that the interest in pedigree poultry breeding in Russia is being fostered, and our specialist breeders will at the present time, no doubt, find an excellent market there.

Should it not be an added incentive to us to take every step to secure our own markets before we feel the full effect of the result of these importations of pedigree stock into Russia?

PRESTON AND DISTRICT TEST.

SEVENTH MONTH.

Figures are eggs and points respectively:—

Section 1—Light Breeds.—P. Williamson (W.L.), 381, 2099; R. Beesley (W.L.), 326, 2022; F. G. Tomlinson (B.L.), 325, 1835; C. Morey (W.L.), 360, 1744.

Section 2—White Wyandottes.—H. Sutton and Sons, 4[illegible]9, 24[illegible]2; G. H. L. Armstrong, 357, 2090; J. T. Finn, 362, 1921; J. Rainford, 293, 1801.

Section 3—R.I.R. and A.O.V. Heavy.—R. Moon and Son (R.I.R.), 385, 2352; G. Cobham (R.I.R.), 393, 2286; J Basnett (R.I.R.), 405, 2182; H. Booth (R.I.R.), 353, 2116.

The Goat-Keeper's Diary

No. V.

By **MRS. G. EPPS.**

(No. 6.)

15th JUNE.—Early kids may now be taken off their milk diet and put on to pasture, hay and meal. Milk for the first three months of a kid's life is quite sufficient, though one often sees at the shows the spectacle of a full-grown goat in milk or at stud being plied with bottles of milk. In these cases it is obvious that goat-keeping is an expensive hobby. The kids should now be eating any amount of mixed green food, and should have a feed night and morning of meal. Meal is better for them than whole oats. Oats, although they contain valuable ingredients for bone-making and general growth, are difficult to digest, and are of greater value if fed in the form of meal. Even full-grown goats find whole oats difficult to digest, and a watchful eye should be kept in the stables to see if they are passed with the droppings. If on going into the stables the first thing in the morning it is noticed that the droppings have the appearance of being broken up instead of being firm, it is evident that the rats have been at them to extract the whole grain. If, however, you are fortunate enough to have no rats to give the warning, the fowls that are running with the goats will often give the hint in the same way.

A correspondent recently asked me if it is permissible to feed laying or growing mash to goats. This suggestion is quite a valuable one, but I think bran should be added, say two parts mash, one part bran. Kids should benefit by this diet, particularly if a small quantity of cod liver oil is added—say half a tablespoonful daily. The veterinary brand is cheaper than the more refined varieties.

There is one point about this practice upon which one would like further information—the desirability of introducing fish or meat meal into the diet of an animal that is purely a vegetable feeder. I am aware that within recent years the practice has been adopted for horses, dairy cattle and pigs, but I am inclined to think that there is a possibility of making them susceptible to diseases from which they have hitherto been free.

Salt should always be available, both for adult and young stock. It should not be mixed with their food, but be given in the form of rock salt in the manger, to be taken as desired.

Another small item that is often overlooked is the necessity of carefully attending to the hoofs. These should be examined frequently, and the walls cut down to the level of the soft part. If allowed to grow long they will be trodden over and cause the fetlock to become deformed with consequent lameness; the feet will become clogged with filth and inflammation may set in. A sharp pruning knife is a good instrument to employ. Whilst paring the hoofs, tie the goat up short and provide some food to keep her attention. When dealing with the forefeet stand in the position that a blacksmith assumes when he shoes a horse, or, for the hind feet, stand behind the goat with the back to her and draw her foot up and hold it firmly between the knees. There will be some preliminary struggles, and care must be taken that the soft part of the foot is not cut. If this, unfortunately, does happen, a dressing of Izal is advisable. During hot and dry weather the hoofs become uncommonly hard, especially in old animals, and the task of attending to the feet will be much simplified if it is done during a spell of wet weather.

THE OMINOUS EGG.

Mr. H. Lloyd has sent me the following comment by the Editor of the "Manchester Guardian" on Dr. Stavros Damoglou's article.

If the learned doctor should happen to read this we may hope that in future he will think twice before he speaks once.

The Ominous Egg.

Not all the Whit-week conferences are of the dry-as-dust variety. One of the brighter sort is meeting in London in the sixth Triennial International Vegetarian Congress, and a genuine die-hard of the movement is reported to have emerged recently in the person of Dr. Stavros Damoglou, of Greece, who not only condemned milk-drinking as likely to lead to "the brains and mentality of a cow" (quite a nice, quiet animal, anyway much better company than some human beings), but also affirmed his belief that the hen's egg was "a filthy centre of infection and disease." Much depends upon the kind of egg which the learned doctor has been in the habit of meeting. There is one sort which is kept for fiery orators who inflame their opponents past endurance, and the orator's egg deserves the worst that Dr. Damoglou can say about it. But there are other sort of eggs—good eggs, round eggs, sweet eggs, eggs whose fair and open countenance does not belie their interior condition. However, if the learned doctor wants to say the egg is a source of infection, nobody can possibly contradict him. Everything is a source of infection nowadays. The only really safe way is to live in a sealed test-tube—and have the whole thing well boiled at frequent intervals. And yet, after all, that is the very treatment to which we submit the edible egg, which is still under suspicion from Dr. Damoglou. Queer, isn't it?

NOTTS EDUCATION COMMITTEE.

LAYING TRIALS, 1926-27.

The Notts. County Laying Trials are being revived after a lapse of a year.

An entirely new plant is to be erected on fresh ground at the Midland Agricultural and Dairy College, Sutton Bonington, and all birds in future will be trap-nested. The new rules are similar to those for the Leicestershire Test, which is being run on the adjacent land; scoring is on the Ministry of Agriculture's system, points varying with the season being awarded to special, first, and second grade eggs.

The test is for twelve lunar months starting on October 15th, 1926.

Particulars and entry forms are now ready, and can be had on application to the County Poultry Instructor, Shire Hall, Nottingham.

Answers to Queries.

By the EDITOR.

DUCKS.

Rev. Seymour Shaw, Warcop Vicarage, Westmoreland, will answer all queries relating to Ducks. In cases of extreme urgency answer would be direct, otherwise they will appear in these columns.

POST-MORTEMS.

"BODIES" for post-mortem examination should be sent to Major C. G. Saunders, D.S.O., B.V.Sc., M.R.C.V.S., Tarring Road, West Worthing

Bodies should be packed and sent by post immediately after death, marked for immediate delivery. The fee is 5s. for a reply by post. The name and address of the sender should be distinctly marked on the package. Advice of dispatch and fee should be sent under separate cover to Major Saunders.

Readers are particularly desired to observe the above rules when sending birds for post-mortem examination, and also as to writing their name and address distinctly on the package.

REPLIES BY POST.

Replies by post (Not Post-Mortems) can only be sent to non-members of the S.P.B.A. on payment of a fee of 2s .6d. per letter. These are answered by the Editor, and relate to every phase of poultry-keeping except post-mortem examinations. Members of the S.P.B.A. are entitled to a reply by post by the Editor by virtue of their membership (NOT from Major Saunders).

All questions should be addressed to the Editor. Major Saunders does not reply to questions either by post or through these columns, except in relation to Post-Mortem Examinations.

T. E. (Hythe) writes that he has a White Leghorn hen in her second year which has been ailing for some weeks, developing purple comb, with a tendency to black, and also the wattles. There is also a red marking round the face, and she is invariably thirsty. Latterly developed a gasping kind of noise when exhaling. The eyes and nostrils were clear; off her food, crop generally empty. Weight slightly decreased, gradually got weaker until she eventually sat down pretty well on her tail. My correspondent believes she has a second bird going the same way. The feeding was:—Broad bran, 5lbs.; plate sharps, 4lbs.; ground oats, 1½; maize meal, 1; meat meal, 1; with wheat and oats as the grain feed. Symptoms are often deceptive, but as far as I can judge from what my correspondent has to say, this is a case of acute kidney disease. As only one bird is affected, possibly two, I see no reason to worry about it. Treatment would be ineffective. I do not attribute it to the feeding, and would not advise that any alteration should be made in the mash because this one bird has developed these symptoms. Would our readers please understand that replies by post can only be made to members of the S.P.B.A. unless a fee of 2s. 6d. is paid.

G. S. (Hereford) writes in reference to a number of Wyandotte pullets which have suddenly developed a most astonishing thirst, with drooping wings and some slight diarrhoea. They are receiving both wet and dry mash, and it would have been much better had my correspondent sent me samples of the food, as we may then have found the cause of the trouble. I strongly suspect the fish meal, and would advise him to have a sample of this analysed to see whether there is an excess of salt. He should carefully examine the other samples of food which he is using. The only advice I can give him is to change the food, and allow the birds as much water as they will drink. It would appear to be a case of salt poisoning. That is all I can say from what he has told me.

E. O. (Bromsgrove) wishes to know whether two-year-old hens lay during the winter months from October to March, as well as year-old pullets. He thought of buying 50 to 100 1924 Black Leghorn hens, mainly with the idea of breeding from them during February and March, and he wants to know whether there is a marked difference between the laying powers of the 1924 and 1925 birds from good utility stock during these months. He also thought of buying 100 Ancona pullets to put in Colony houses on his farm. He understands they forage well for themselves. He asks: How the Anconas compare with Black Leghorns from a laying point of view, and he wishes to know whether they will consume as much food as Leghorns.—In answer to his question: No, the 1924 hens are not likely to lay so well during the three months as the 1925 pullets, but my correspondent will be lucky, indeed, if he gets eggs during October and November from last year's stock. With reference to the 1924 hens. He will find these will moult later than the 1925 birds. Secondly, they are not likely to come into production again much before the middle of December, and as a light breed they are less likely to lay before Christmas than the heavier breeds. The light breed hens are most susceptible to winter conditions than are the pullets. With regard to the Ancona pullets: These should do well under these conditions. They are certainly good foragers, and although on the average I would not call them quite as good layers as the Black Leghorns, there are some strains which would compare quite favourably with them. As a rule they consume rather less food than the Leghorn, and they are, as he says, a non-sitting breed.

M. L. (Suffolk) wishes to know whether he should use boiling or cold water for mixing a crumbly mash for fattening. Whether wet mash first feed in the morning and dry mash in hoppers would be a good method of fattening, with mixed poultry corn in the evening. Whether it is advisable to give growing pullets all the food they can eat without wasting, and whether I advise spices for laying hens or not?—In answer to his questions. I has been so often explained in these columns that the effect of heat on the carbonaceous foods is to cause the starch granules to swell and rupture the cellulose envelope, thus making all the starch foods more digestible; therefore it is much wiser to feed a cooked wet mash to stock which you are fattening than a dry mash. The method of feeding suggested by my correspondent would not answer. The best method is to give two wet feeds a day of mash, and one of cooked rice or wheat in the evening, as much as the birds will clear up in twenty minutes. Under no circumstances should anything they have not cleared up be left before them. It is advisable to give growing pullets all the food they can eat. You cannot overfeed a growing pullet or a laying hen. You may feed them badly; that is on an unbalanced ration, but they cannot have too much good food. Spices are only an irritant, and they should never be given to laying hens, particularly at this season of the year. The use of spices and such irritants often cause prolapsus, thin-shelled, and shell-less eggs. When anything of this nature is required a teaspoonful of poultry mustard for every twelve hens is better and safer than anything else.

M. E. R. (Newcastle-on-Tyne) has 12 Black Leghorns which she has kept in an intensive house 6ft. x 8ft., well ventilated, with plenty of window, on peat moss litter. A short time ago they took to feather plucking, and are now almost nude. She has let them out in the run because she thought it was due to their being too closely confined, and thought perhaps the moss litter was too dusty for them. My correspondent wants to know if I can give her something, in these columns, to make their feathers grow again, as they look terrible. They have oyster shell and green food, and "M. E. R." does not think it can be due to a deficiency of lime. In answer to this question, I do not think it is due to a deficiency at all. It is merely a vicious habit caused by too close confinement, and the moss litter was not the right litter to have for them, as they do not get sufficient scratching exercise, which they would have done had they had straw. I cannot help my correspondent to make the feathers grow again. These will come in due course if the feather plucking has actually ceased. All she can do is to feed them well. Do not allow them to be exposed to any blazing hot sun which may happen to come along, and their feathers will grow normally. If there is any recurrence of the feather plucking she must smear the feathers with some nauseous compound in order to stop it, such as lard, to which a little bitter aloes has been mixed.

H. J. A. (Blackburn) has five White Leghorn cockerels which he thinks of retaining until next season to mate with two-year-old hens in one flock. He wishes to know whether I think fertility would be satisfactory, especially as he wishes to hatch January chickens as a trial. He may have some difficulty with his January chickens, as second-season males are not very active in December, otherwise I do not think he would have any difficulty with fertility. Of course, it would to some extent depend upon the size of the flock with which they were mated. To ensure better fertility my correspondent would be well advised to dub the cockerels and also pare down their spurs.

D. S. (Golcar) writes:—" For the last three weeks I have been finding twelve weeks' old pullets dead on the floor with the other pullets eating their gizzards. The first I noticed was bleeding at the root of the tail, and a few hours later was found dead, the other chickens having apparently pecked it to death. I do not suspect rats, cats or dogs. Could it possibly be the depluming mite that is the original cause of irritation, and later the breaking of the skin? "—There is just the possibility, or there may have been some irritation of the skin causing an inflamed condition which would attract the notice of the other birds in the first place, and this has developed into cannibalism. It may also have originally started by feather plucking. The best thing my correspondent can do is to smear the feathers with some nauseous compound, such as lard or vaseline, to which a little bitter aloes has been added. In addition to this I would advise sulphate of iron in the drinking water at the following rate:—Dissolve two ounces of sulphate of iron in a quart of water, and add one teaspoonful of the solution to every pint of drinking water and allow them nothing else to drink. If this does not check it the only thing would be to glut the birds with raw meat, preferably bullocks' lights minced; it is singular what a number of cases of this kind we have had reported to us this season.

POST-MORTEMS.

H. H. R. The post-mortem examination of the chickens showed no actual disease lesions, but only a remarkable lack of digestive function, and very poorly developed digestive apparatus. The stomachs were small, and the gizzards devoid of muscular development, and the food was passing through the length of the canal practically undigested. There were no parasites of any description to be found either mascroscopically or miscroscopically. I am not at all sure but that they were adversely affected by the constant exposure to the electric light, as cases are on record in which male birds (these were cockerels) exposed continually to electric light, lost their sexual powers, and went into a state of wasting or marasmus. It might be worth while trying the effect of a digestive tonic, such as two grains each, mixed with the mash twice daily of this mixture:—Powdered coriander seed, aniseed, fennel, cinchona, each 30 grains; gentian and ginger of each one dram; sulphate of iron finely powdered, 15 grains.

M. S. The post-mortem examination of the W.L. pullet showed that peritonitis, due to rupture of the uterus was the cause. She was very much too fat for a layer, and this would predispose to this accident occurring, both by the mechanical obstruction offered to the passage of the egg down the oviduct by the masses of internal abdominal fat, and by the weakening of the walls of the uterus by fatty infiltration of the muscular fibres.

T. B. S. The post-mortem examination of the W.L. hen showed that she was affected with tubercular peritonitis, and there can be little or no doubt but that the cases of "dropsy" were similarly affected. The disease is not only contagious but insidious in its spread, and can only be stamped out by the most drastic measures. It is recommended to destroy all the incontacts of these cases, and to thoroughly disinfect their quarters and all their equipment, and to dress the runs heavily with quicklime, and dig it in. Only after several disinfections, and a long interval has elapsed, should the houses and runs be restocked. A five per cent. solution of carbolic acid in water is suitable for disinfecting purposes, and several applications of this should be made, the houses finally to receive a coat or so of limewash with ¼lb. of the acid added to each gallon of it; litter and droppings should be burnt. The other alternative is to isolate all the incontacts, and have them periodically tested with avian tuberculin, eliminating the reactors as they are discovered, until no more occur.

Some Fruit Growing Notes to help Poultry Keepers.

ERRATUM: Article No. 3, on Vines, page 336. The fifth paragraph should read: " Drawing No. 1 is drawn half full size"—not " full size "—for bunches of grapes at that stage of their growth should be at least double the size of my sketch.

The general strike unfortunately prevented Article No. 2 from appearing, so as I have been asked some questions that were dealt with in those notes, I am re-writing part of it now.

Watering. Here we have two cases to be dealt with, namely; (1) those vines where the roots are inside the greenhouse or conservatory, and (2) those there they are planted outside and the main rod brought into the house near the ground.

For the latter the rain will usually provide what is necessary, unless the rods come on the sheltered side and the ground near the wall becomes dry; or when a spell of fine weather sets in at a critical time when vines are wanting water. These periods I will mention in dealing with vines planted inside. The most useful outdoor application is usually weak liquid manure just before the berries start to colour. Should the soil be extra dry, first of all give a good watering of clear water.

For inside vines it is best to apply water at five or six periods only, and then to give a good soaking, which is far better than several light waterings. It is with this work where the importance of good planting is realized. If good drainage was not attended to, then surplus water does not soak away; and shanking of the berries is one of the troubles that arise.

The first application of water is after cleaning the vine and closing down the house in readiness for the new season's growth, the second just previous to the vines flowering. Always use a tepid water whenever possible; a temperature rather warmer than the house being best. A tank kept inside is of great assistance for having a supply ready for use, this being warmer than when drawn off the main.

The third watering is when the bunches have set their blooms, and the berries are starting to swell. If the vine is more than two years old, weak liquid manure can be given with advantage. It is better to have this too weak than too strong (or a safe precaution is to give more clear water afterwards to wash it well down to the lowest roots). The fourth period to supply water is when the berries are about half full size, and the stoning period is in progress.

The fifth when the berries start to show signs of colouring (liquid manure should be given at this period). At this stage the vines often exhaust the moisture in the soil rapidly (plus the loss by the sun's heat), and a further (or sixth) application can be given, say, ten days after. This last watering is regulated according to the hot or cold weather at the time; for it varies very considerably each year.

Do not apply stimulants when the berries have coloured, as it is useless to the hanging crop.

Water is best applied in the morning, as air can then be admitted to the house, and in particular is this wise when giving liquid manure, because of the ammonia fumes.

Closely connected with watering is syringing, and this is very beneficial in the early stages; i.e., when the rods start to break into growth; it can be continued until the flowers are seen on the new shoots, always bearing in mind outside weather conditions.

Avoid all moisture when the vine is in flower, so that the pollen can the better be dispersed and a more perfect setting of the fruit obtained. Rust on the berries and other troubles are likely to follow if care is not taken at the flowering period. (I mention this as amateurs often fill up their conservatories with pot flowers, ferns, etc., and thus excessive moisture is about when dryness is wanted for the vines).

After the flowering period (as mentioned above), do not renew syringing, but in bright weather the floors and walks can be damped once or twice during the day time, but not after closing down for the evening.

Attention to these details will considerably affect our success, not only in the quality of the fruit, but in helping to bring it to full ripeness before the cold autumn days and nights arrive.

Ventilation. Great care must be exercised here; particularly on bright, sunny mornings. The temperature will often run up so quickly that we must give it early morning attention. If it runs up do not open the ventilators too suddenly. About 75 degrees is a nice one to aim for during the day; but it will be rather higher midday. When the weather is dull, I would prefer to err on the side of a low temperature than shutting the house up and having a stuffy humidity. When berries are colouring, the top ventilators can with advantage be left open a little all night.

I shall hope to give a few more notes on vines later on, as I did not touch on that subject in my little book "Fruit Growing for Poultry Keepers" (from Mr. Tom Newman, 1s. 3d. post free), but in the next article I want to enlarge on summer pruning and other matters only dealt with briefly in the book just mentioned.

GLAMORGAN AGRICULTURAL COMMITTEE.

COUNTY EGG-LAYING TRIALS, 1925-26.

Report for Eighth Period.

Heavy Breeds.—J. Joshua, Tondue (R.I.R.), 2502 pts.; Mrs. Jenner, Wenvoe (W.W.), 2151; A. L. Davies, Morriston (W.W.), 2124; R. J. Evans, Abertridwr (R.I.R.), 2114.

Light Breeds.—Howell and Phillip, Barry (W.L.), 3280 pts.; D. Hopkins, Port Talbot (W.L.), 2471; D. J. Thomas, Pontardawe (B.L.), 2425; A. J. Jenkins, Barry (W.L.), 2315.

Single Birds. Heavy Breeds.—G. A. Monk, Ynysybwl (W.W.), 896; G. Haylings, Ynysybwl (W.W.), 853.

Single Birds. Light Breeds.—G. A. Monk, Ynysbywl (W.L.), 613; T. E. Lewis, Pontardawe (W.L.), 480.

Dry mash birds laid 962 eggs during this period. Wet mash birds laid 928 eggs during this period.

Bird No. 2 of Pen 43 (W.W.) died on May 13th from suffocation caused by impaction of the gizzard.

S.P.B.A. Council Meeting.

By kind invitation of the President (Mrs. Hunter), the June meeting of the Council was held at her beautiful home at Knockholt, on Wednesday, June 23rd. The restricted railway prevented a full attendance, and Mr. J. G. Kitson, much to the regret of his colleagues, had not sufficiently recovered from his illness to make the journey.

Present :—Mrs. Hunter (Chair), Miss Maddison, Mr. A. H. Paine, Mr. Bostock Smith, Mr. A. E. Hamlin (Hon. Solicitor), Mr. J. H. Dowden, Mr. E. J. Meekings, Mr. P. Hedworth Foulkes, the Treasurer and Secretary.

Minutes.—The minutes of the last meeting were read, confirmed and signed.

World's Poultry Congress.—Arising out of the minutes, Mr. Foulkes proposed that it would be advisable for the Association to have an exhibit at the forthcoming World's Poultry Congress. This was seconded by Miss Maddison, and agreed to. Mr. Foulkes was asked to submit proposals as to the nature of the exhibit to the next meeting of the Council.

Secretary's Report.—The Secretary reported that the total number of fully paid up members to the end of May was 7,100. These were direct members, as they had no affiliated societies. There were ten less new members during May than in the corresponding months last year, but this was due to the General Strike.

Bacillary White Diarrhoea.—At the last General Meeting a resolution was moved, on behalf of the Wadhurst Branch, and seconded by Mr. P. S. Campbell, to the effect that all birds entered on the Association's Annual Register should be blood-tested. After discussion, Mr. Everard proposed that a committee be appointed by the Council to report. The report of the committee, submitted by the President, was that it had been unanimously agreed that, having in view the fact that it would be necessary for breeding stock to be blood-tested some months before they were mated if they were registered, and also that one test was certainly not sufficient, it would be inadvisable to make blood-testing of registered stock compulsory.

The N.P.C.—A long discussion took place on Mr. Foulkes' proposal to raise the minimum subscription to the Association to 5/6, the sixpence to be allocated to the National Poultry Council funds. It was eventually agreed to postpone further consideration until after the meeting of the National Poultry Parliament at Cambridge on July 20th. The Secretary read a letter from Mr. Hemelryk in support of Mr. Foulkes' proposal, and the President one from Mr. Kitson against it.

Treasurer's Report.—The Treasurer submitted his report, which was approved. He submitted estimates for the printing of 8,000 copies of the Annual Register for 1927. After full consideration it was agreed to accept the lowest estimate.

Experimental Farm.—Mr. Foulkes (Chairman) reported that the Management Committee had visited the farm on the 14th inst. Arrangements had been made as to the water supply, and it was determined to so alter the existing house that the front should be open entirely except in the most severe weather. The breeding pens which had been kept intensively had been tested for hatchability, one pen having been given its liberty; in one the whole front of the house had been removed, and in the other cod liver oil had been added to the mash. The pen which had been given its liberty had made the greatest improvement, but a very marked improvement had been made by the pen which had the front of the house removed. There had also been a definite improvement with the pen which had been given cod liver oil, but this was not so marked. Coccidiosis had broken out among some Wyandotte chicks, and in one other pen. Both these pens had been kept intensively, and it was impossible for them to have been infected by wild birds. There was the possibility of infection having taken place from the green food, which was grass cut from the field, but no poultry had ever ranged over it. One chick that had died from the disease had been traced to a particular hen whose eggs had hatched badly by means of the toe-punch. Unhatched eggs of hers had been sent to Major Saunders, who would examine them for traces of coccidia. It was proposed, too, to send the hen to him to examine the excrement, and, if necessary, make a post-mortem examination of her.

National Poultry Parliament.—The delegates to the National Poultry Parliament and Council at Cambridge, on July 20th-22nd, will be: Miss Maddison, Mr. J. G. Kitson, Mr. Dowden, Mr. Spurgeon, Mr. Bostock Smith.

Miss Maddison proposed that a very hearty vote of thanks should be accorded Miss Malcolm and Mrs. Pember for the invaluable services they had rendered the Association in connection with the experimental work on their farm at Wellingham. This was seconded by Mr. Bostock Smith, and unanimously agreed to.

Food Purchase Scheme.—The Secretary reported that an increasing number of members were taking advantage of the Food Purchase Scheme, and testified to its great value. Very numerous letters were received from members, who, while not themselves buying through the S.P.B.A., wrote to say that the scheme had been of the greatest benefit to them, as it had forced millers and corn merchants to bring down their prices. He hoped that they would be able to achieve even better results.

This closed the business, the next meeting being fixed for July 13th.

Mr. Mudie Draper, proposed a very hearty vote of thanks to their kind host and hostess for giving them such a very delightful day. It had been a day of great pleasure and enjoyment to all of them, and they were lost in admiration of the beautiful gardens. Mr. Foulkes seconded, and the resolution was carried with applause. Mrs. Hunter, in reply, said that it was a very great pleasure to Mr. Hunter and herself to welcome the Council there.

The Canadian Record of Performance for Pure-Bred Poultry

By P. HEDWORTH FOULKES.

The sixth annual report of the Canadian Record of Performance for Poultry dealing with the year 1924-25, has just reached this country, and is in itself most interesting reading, but even more than being interesting it is, to use the words of the Canadian writer, epoch-making. English breeders would do well to carefully study the work which is being done in Canada, and to take a leaf out of the book of progress which has been written by our daughter country. Canadian poultry breeders have now entered the seventh year of Dominion Government inspection in Record of Performance and the sixth year in registration. The general public interested in poultry breeding are realising more and more that the Record of Performance breeders, as a class, are developing stock of a very high order, and the demand for stock is rapidly increasing. The fact that this stock is bred, not only for quantity of production, but for size of eggs, vigour, standard, breed, type, and colour, and carries the Government certificate makes for the increasing demand.

A development of the R.O.P. work has been the creation of Provincial Record of Performance Breeders' Associations in seven out of the nine provinces in Canada, where the scheme has been operating. These associations are of benefit both to the members and to the prospective buyers of stock. They assist members by co-operative advertising, selling, and the prospecting and developing of new markets, while buyers find them useful through their ability to handle orders quite beyond the range of the private breeder.

Turning to the figures of the report, it is interesting to note the totals, which show an increase of over 25 per cent. in the number of birds entered for the year. Of the total 20,002 birds entered, only 32.7 per cent. failed to qualify for the R.O.P. minimum of certification.

Record of Performance Certificates may be issued for all birds, not otherwise disqualified, that in 52 consecutive weeks lay 150 eggs, and Advanced Certificates for those birds, not otherwise disqualified, which lay 225 eggs in 52 consecutive weeks, providing in both cases that after January 1st at least half the number of eggs laid during official inspections weigh two ounces or over.

Much has been written and said as to the "300-eggers," and naturally the question frequently asked is: "How many birds lay 300 or more eggs under the Record of Performance inspection? The report shows that since the work was started 68,716 birds have been officially tested, and of these 27, or one bird in 2,545 have laid 300 eggs or over. Of these 17 were White Leghorns, five were Barred Plymouth Rocks, three Rhode Island Reds, and two White Wyandottes.

These figures may be compared with the world's recognised egg laying contests during the same year, 1924-5, where we find 36 birds in the list of 300-egg hens, and of these birds 19 made their records in British Columbia, and pay splendid tribute to the work of the members of the R.O.P. Poultry Breeders' Association of British Columbia.

Perhaps the most notable achievement in the history of breeding for production was that of a prominent R.O.P. Leghorn breeder of British Columbia during the year just past, who had ten hens with official records over 300 eggs. One of these laid 331 eggs at the Agassiz Egg Laying Contest, which was a world's record for a private breeder for 1925 for the regular period of a contest.

Another interesting case is that of a private breeder who bred eight full sisters that under R.O.P. Test averaged 299 eggs. The production of these hens was checked and re-checked, and the flock was given the most exacting and unrelenting inspection to satisfy the Department of Agriculture, to whom these records at first seemed impossible, but who put the official stamp of approval on them later.

From these results and those reported from other sources it would appear that breeding and feeding for production have been developed to a point where the 300-egg bird is well past the mythical stage. The true significance of the performance of the different breeds cannot be realised, however, unless one considers that before these records could be officially recognised that the birds themselves had to pass inspection for fifty-two weeks of the year, as being good standard specimens of the breed, as having no standard disqualification, and as being layers of large eggs.

The results already accomplished fully vindicate the efforts of those responsible for the Record of Performance work.

SCIENTIFIC POULTRY BREEDERS' ASSOCIATION.

APPLICATIONS FOR MEMBERSHIP.

Duncan, F., Culverlands, Green Lane, Stanmore.
Lydiard, Ernest, Craigmore Cottage, Newry.
Cross, Miss D., Askworth Cottage, Cloughton, Nr. Scarborough.
Botting, Capt. C. H. B., The Nook, Westfield Road, Beaconsfield, Bucks.
Gedney, E. J., Longfield, Kent.
Cooper, Edward, & Sons, 129, George Street, Hyde.
Ainslie, Miss A. D., 56, Clermiston Road, Corstorphine, Midlothian.
Bradly, C. H., Lower Farm, Tibberton, Glos.
Richards, G. A., Woodland P. Farm, Foley Road, Streetly, Sutton Coldfield
Neave, Harold, Ivy Farm, Neatishead, Norwich, Norfolk.
Neufeld, Juan, Santurce by Bilbao (Viscaya), Spain.
Smith, Stephen, Harrison P. Farm, Chapel Fields, Hindley, Nr. Wigan.
Sigurdson, O. C., The Orchard, Grove Road, Little Clacton, Essex.
Fagge, Mrs., Braeside, Melton Mowbray.
Renyard, Miss F., Scotsgrove, Thame, Oxon.
Warren, Capt. J., The Knap, Nr. Chard, Somerset.
Wood, T. D., Buarthau, Beddgelert, North Wales.
Parrin, Thomas C., 135, Whit Lane, Pendleton, Manchester.
Hardy, Mrs. W., Nanoose, Wool, Dorset.
Miller, Archie, 48, Montague Street, Rothesay.
Bonn, Major W., Street Ashton House, Rugby.
Ewan, P., Brymay Country Club, Ray Park, Snake's Lane, Woodford Green, Essex.
Whittaker, W., "Woodrising," Burwash, Sussex.
Jacomb, A. E., Forest P. Farm, Collier Row, Romford, Essex.
Taylor, Frederick H., 7, Wimpole Road, Yiewsley, Middlesex.
Dow, Carl W., Wester Rossie, Auchtermuchty, Fife.
Ingram, T., High Street, Niton, Nr. Ventnor, Isle of Wight.

Correspondence.

EGG MARKETING.

Dear Sir,—I have read part of the Ministry's report on egg marketing, and the reports of the conference subsequently held. After a few months' experience of direct sale I find that the occupants of one of "London's dormitories" are very willing to have eggs averaging nearly 2¼ ozs., and fully guaranteed, at the same price that is charged for eggs averaging about 1⅞ or less—that is about the London wholesale price or very little more.

Perhaps 5 per cent. would be willing to pay 3d. per dozen more for eggs of 2¼ ozs. and over, say an average of 2⅜ ozs. I doubt if the large egg, now so vociferously demanded by wholesaler, Ministry and others, can be produced at less than 50 per cent. extra on the cost of the 2 oz. egg. It is a question which could only be settled satisfactorily by experiment on a considerable scale, conducted by a really competent body. The statements made by many writers on the subject appear to be distinctly unreliable on the score of plain arithmetic, and costing seems to be an insoluble mystery to most people. Hence the need for experienced investigators.

No doubt conditions with respect to appreciation of a first-class article vary widely in different parts of the country, and others selling direct to the public may have a vastly different tale to mine.

QUESTION.

POULTRY CLUBS AND STANDARDS.

Sir,—Another show season has now begun, so perhaps the moment is opportune for an appeal. Complaints from Specialist Clubs of not exhibiting and judging to standard from time to time reach the Council of the Poultry Club, and the Council feels that if the matter were put before all those people concerned, good might result. What is past is done, and cannot be undone, but the Council feels that for the full benefit of standards to materialise three separate forces must co-operate. It, therefore, requests:—

(*a*) That breeders be asked to select their exhibits from birds conforming to the standards.

(*b*) That judges be requested to judge as strictly as possible according to the standards.

(*c*) That Editors be asked to instruct their reporters to criticise from the point of view of the standards.

It must be borne in mind that the standards are responsible directly for the pre-eminence of British poultry. Without them breeders have nothing to guide them; without them poultry would soon lose its identity. The main duty of the Poultry Club is to protect the standards, which are constantly being revised, a further edition being in course of compilation now. By observation of the standards the work of the Poultry Club is rendered easy, but what is far more to the point, the different breeds are protected, and prestige is added to British Poultry, which is thus kept in the proud position that it holds as THE PREMIER BLOOD-STOCK OF THE WORLD.

Thanking you for your courtesy,

I am, yours sincerely,

LAWRENCE ARDERN,

President and Chairman of the Poultry Club.

DEAD-IN-SHELL.

Dear Mr. Newman,—With reference to your article re dead-in-shell, my figures for the two years' hatching may be of interest, as they bear out your remarks. The hatches were weekly and were spread over about fifteen weeks, and my eggs and eggs bought were freely mixed in the incubator. This is a No. 9 "Buckeye" Mammoth (2,300 eggs), so you can take it that practically all eggs had identical treatment. Temperature of the incubator is, as you know, 100 degrees, and the maximum over 15 weeks (readings taken four times a day) was 100½ degrees and minimum 99 degrees. Tests were made on the 18th day of each hatch, so that dead germs means dead before the 18th day, and dead-in-shell after.

Eggs supplied by different breeders :—

Buff Rocks, Marsh Daisies, and White Leghorns.

Breed.	No. of Fertile Eggs.	Dead Germs	%	Dead in Shell.	%	Remarks.
Buff Rock	674	58	8½p.c.	124	18½p.c.	Own eggs.
Buff Rock	735	73	10p.c.	187	25½p.c.	Travelled.
M. Daisies	263	19	7p.c.	49	18½p.c.	Bought locally.
L. Sussex	100	9	9p.c.	18	18 p.c.	Bought locally.
W.Leghorns	2612	102	4p.c.	389	15p.c.	Own eggs.
W. Leghorns	111	9	8p.c.	26	23½p.c.	Travelled.
Average of Totals	4465	270	6 p.c.	793	18p.c.	

Yours truly,

J. F. CAINE.

DEVON COUNTY EGG-LAYING TRIALS.

The total number of eggs laid to end of seventh period are graded as follows:—

Light Breeds (75 Pullets).—During seventh period: Specials, 703; First, 385; Seconds, 347; Non-scoring, 37.

Heavy Breeds (125 pullets).—During seventh period: Specials, 1019; First, 588; Seconds, 674; Non-scoring, 29.

Leading Pens to end of Seventh Period.

Figures are Eggs and Points respectively:

Light Breed Section (Five Pullets per pen).—Mr. H. C. Wood (W.L.), 670, 5352; Mr. G. K. Simmons (W.L.), 605, 4522; Messrs. C. and W. Grimson (W.L.), 547, 4513.

Heavy Breed Section (Five Pullets per pen).—Brigadier-General M. E. Richardson (W.W.), 658, 5387; Mr. G. V. Thompson (W.W.), 631, 4913; Messrs. A. and J. Rew (W.W.), 679, 4874.

Single Bird Performances to end of Seventh Period. Capt. H. M. Jolley (W.W.), 139, 1306; Mr. A. B. Gay (W.W.), 139, 1265; Mr. O. Trude (W.W.), 151, 1263.

London Market Advice Table.

JULY, 1926.

By A. V. CLARKSON.

This month sees the commencement of the marketing in large quantities of hens and surplus cockerels. Automatically with this fact there springs up the usual supply of "crooked" poultry dealers, and from first-hand information there is no shortage in numbers this year. They invariably advertise under a flowing title, or offer more than the market price. (This is the bait they use.) Therefore, I want to issue a special warning and a little advice to protect the senders from being fleeced. It will be appreciated that my remarks must be general and not too detailed, but at the same time, if they are ignored, senders of live poultry will have themselves to thank if they find they have lost their hampers, crates, or egg boxes, together with the contents. There is a police-station for every district in this country, and the police know in most cases the actions of these individuals. If you have any doubt at all, you can communicate with the police-station in the particular district, and enquire whether a man is reputable or otherwise—unless you have a friend in London who can make a personal call.

A sender in the country wants protection, and at the same time he wants to market his produce to the best advantage. He must first of all find a reputable salesman. He should communicate with the salesman and enquire the approximate realisation price BEFORE HE SENDS. If the salesman's price does not appeal to him, he has the local auction market. In the latter place he is faced with the Jewish "rings." Other than placing a reserve upon his poultry in the local auction, he could go and bid against the member of the "ring" who has been allocated to do the bidding for them, and if this buyer does not reach the price quoted by the salesman the producer has the satisfaction of knowing that he still has his birds and can send them to London rather than have them "flogged" at a local market. This goes to show how necessary it is for a producer to keep in touch with the London prices.

DETAILED ADVICE.

Surplus Cockerels.—It is really necessary that these birds be pen or coop fed for a time to make them sell at anything like a decent figure, because their appearance when so treated is so vastly superior to those which have not been specially fed, and have been allowed their freedom. Before sending, enquire of your salesman the particular size in demand.

Hens.—All hens should be sent alive. Heavy breeds should be sent separate from the light breeds, and it will be found that London invariably does better with Leghorns than can be done in local markets.

Duckling.—The real demand in London is for a White Duckling scaling 4½ lbs. or over when dead. The smaller or coloured duckling should be sent alive, as it is very difficult to sell these small birds dead.

Old Ducks and Old Cocks.—These birds should always be sent alive.

Eggs.—It is anticipated that prices will steadily rise, and make it possible for the producer to send to London, but of course on the terrible low prices which have been ruling lately, this has not been possible. It is worth while mentioning here that the English egg trade has suffered in prestige lately because so many bad and stale eggs have been arriving, which is presumably due to the fact that the strike caused many eggs to be held up.

PROOFS.

We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

Food Purchase Scheme.

ALL PRICES ARE SUBJECT TO MARKET FLUCTUATIONS.

May we state that all grains, meals, grits, etc., are obtainable from any one of the depots mentioned in these columns, but the undermentioned are special items. Price list will be despatched to any member, if application is made to this office.

Referring to the odd cwts., which are now supplied under the Food Scheme, 9d. per cwt. extra will be charged on the prices already shown. This is to cover the extra expenses and handling which the one cwt. business involves. If the total order for one firm amounts to 5 cwts. and over, this extra charge will not be made.

Will all members ordering under this scheme kindly note that orders received by second post on Saturdays cannot be dealt with until the following Monday.

All orders accompanied by cheque should be sent to Mr. Tom Newman, Secretary, Rudgwick, Sussex.

SPECIAL OFFERS.

FISH MEAL: F.O.R. GRIMSBY and TYNEMOUTH—5 cwts. and upwards, at 16/9 per cwt.; under 5 cwt. orders at 17/6 per cwt.

UNEXTRACTED DRIED YEAST: F.O.R. GRIMSBY and HULL—At 20/3 per cwt. for 5 cwt. orders; 21/- for orders under 5 cwts.

FISH MEAL, with the following analysis:—

OIL ... ... 4.5 per cent.
ALBUMINOIDS ... ... 55.60 per cent.
PHOSPHATES ... ... 16.18 per cent.

Prices F.O.R. LONDON

Under 5 cwts. ... ... 18/9 per cwt.
5 cwts. orders and upwards ... 17/9 per cwt.

FISH MEAL	17/9	F.O.R. SWANSEA.
,, ,, ...	16/6	F.O.R. MIDDLESBRO'.
MAIZE GRITS	10/6	F.O.R. LONDON.
,, ,, ...	10/6	F.O.R. IPSWICH.
MAIZE GERM MEAL ...	8/6	F.O.R. LONDON.
,, ,, ,, ...	8/6	F.O.R. IPSWICH.
S. G. OATS	12/6	F.O.R. SUSSEX.
MEAT AND BONE MEAL	15/3	Carriage Paid.
MEAT MEAL	15/9	Carriage Paid.
ALFALFA	12/6	F.O.R. LONDON.
,, ...	11/9	F.O.R. BRISTOL.
BONE FLOUR	9/9	F.O.R. LONDON.

LIMESTONE GRIT: F.O.R. BRADFORD (three grades)—Poultry, Medium. Chicken. In minimum orders of 5 cwts. at 2/6 per cwt.; single cwt. included in order for other goods from Bradford, at 2/9 per cwt.

FISH MEAL:—

OIL ... ... under 4 per cent.
SALT ... ... under 3 per cent.
ALBUMINOIDS ... 55/60 per cent.
PHOSPHATES ... 15/20 per cent. at 17/0 per cwt.

MEAT AND BONE MEAL:—

ALBUMINOIDS ... 35/40 per cent.
FATS ... ... 10/15 per cent.
PHOSPHATES ... 25/30 per cent. at 12/9 per cwt.

MEAT MEAL:—

ALBUMINOIDS ... 57/62 per cent.
FATS ... ... 10/15 per cent. at 15/6 per cwt.

F.O.R. MIDDLESBROUGH.

F.O.R. DERBYSHIRE.—Limestone Grit, Poultry and Chick Size, at:—5cwts. orders and upwards at 2s. 6d. per cwt; single cwts. at 3s. per cwt. Limestone Flour, 5cwts. orders and upwards at 4s. per cwt.; single cwts. 4s. 6d. per cwt.

COD LIVER OIL, Carriage paid:—1 gall. drum at 6s. 9d. per gall.; 5 gall. drum at 5s. 3d. per gall.; 10 gall. drum at 4s. 6d. per gall. Also packed in 40 gall. barrels. Drums inclusive and non-returnable.

	MASHES					CHICK FEED		MIXED	S.G.	FISH	MEAT	MEAT & BONE
	Layers	Growers	Breeders	Chick	Fattening	No. 1	No. 2	CORN	OATS	MEAL	MEAL	MEAL
Liverpool	11/-	11/-	12/-	12/-	12/-	17/-	15/-	13/3	15/-	20/3	19/-	15/-
London	11/6	11/6	12/6	12/9	12/6	17/9	16/3	14/6	13/6	17/6	...	13/6
London	11/-	11/-	12/-	12/3	11/9	17/3	15/9	13/3	...	...	...	...
Leith	10/3	10/3	10/9	11/3	11/3	16/3	15/9	11/9	13/-	18/9	...	13/3
Leicester	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	13/6	19/6	...	13/9
King's Lynn	10/9	10/9	11/3	12/-	11/9	17/3	15/6	13/-	15/-	18/9	...	14/-
Belfast	12/-	12/-	12/6	13/6	12/6	17/9	16/9	12/6	13/3	19/3	14/9	12/6
Bristol	11/-	11/-	11/9	12/6	11/9	17/9	15/9	14/-	13/3	17/9	...	12/9
Southampton	11/6	11/6	12/6	12/6	12/-	17/9	15/9	12/-	14/-	19/9	..	13/9
Plymouth	12/-	12/6	12/6	14/-	11/9	19/-	16/9	13/3	15/3	20/0	...	16/0
Aberdeen	11/3	11/3	12/6	12/6	13/-	16/6	15/9	...	12/6	17/6	..	12/6
Harrogate	11/6	11/6	12/3	12/9	12/9	17/6	15/3	...	13/6	20/-	...	13/6
Glasgow	12/-	12/-	12/-	13/-	12/-	17/-	15/-	12/3	13/6	19/3	17/3	15/3
Staffs	10/9	10/9	11/3	11/3	11/3	17/6	15/-	13/-	13/6	19/-	...	13/3
Kettering	11/3	11/3	12/-	12/6	12/-	17/-	15/-	12/-	13/6	19/6	...	13/9
Bradford	11/6	11/6	12/3	12/9	12/3	17/6	15/9	13/3	14/-	17/6	18/-	14/-
Birmingham and Wolverhampton	10/6	10/6	11/-	11/-	11/-	18/-	16/-	13/0	12/9	19/0	...	13/0
Greenock	11/-	11/3	12/-	12/9	13/-	17/9	15/9	...	15/-	20/3	15/9	15/3
Tewkesbury	11/3	11/3	12/-	12/9	12/-	18/-	15/-	11/9	13/3	20/3	....	13/6
Bolton	11/-	11/3	12/3	12/3	12/-	17/-	15/3	13/-	13/6	20/3	...	14/-
Middlesbrough ...	11/3	11/-	11/3	12/3	12/-	17/3	16/3	12/6	13/6	16/6	15/6	12/9
Mid Sussex	11/3	11/-	11/6	12/3	11/6	17/3	15/3	13/-	12/6	19/6	17/6	17/-
Sussex (East) ...	11/6	11/9	12/6	12/-	12/3	17/6	15/-	...	12/6	21/-	...	14/-
Sussex	11/6	11/6	12/6	12/6	12/6	18/-	15/3	13/-	12/9	19/6	...	18/-
Essex	10/9	11/6	11/6	14/3	12/9	17/9	15/9	...	13/6	...	...	...
Birkenhead	10/0	10/0	11/6	11/3	12/-	17/-	14/6	12/9	12/6	19/6	...	13/9
Isle of Wight	11/9	12/-	13/6	15/-	...	18/6	17/6	12/6	16/-	21/-	...	15/-

It would be of very great assistance if members when ordering would always STATE STATION they wish goods despatched to, also their NEAREST DEPOT.

Market Report.

MINISTRY OF AGRICULTURE RETURNS, WEEK ENDING. FRIDAY, 25th JUNE, 1926.

GRAIN AND FEEDING STUFFS.—The few available parcels of British wheat move fairly readily, and recent prices are firmly held, the average quotation being 13s. 9d. per cwt. Foreign supplies of wheat are also limited on spot, and quotations tend to harden. Limited offerings of home-grown feeding barley realise firm figures; while trade rules quiet at a little more money for foreign sorts. English oats are short, and last week's prices are maintained but imported descriptions are in more active request with a firmer tendency in values. Maize records a sharp advance all round, with a much better inquiry; both Argentine and South African now average about 7s. 5d. per cwt., as against 6s. 11d. and 7s. 1d. respectively last week.

There is rather more inquiry for middlings, although the London quotation is lower on the week, while bran is again reduced at both London and Liverpool. Maize products are mostly dearer, except at London, but bean, fish and barley meals are unaltered in price. Linseed cakes have advanced at several centres, but cotton cakes move slowly, and are the turn in buyers' favour.

MILLERS' OFFALS.—Bran (British): Bristol, £6; Hull, £5 7s.; Liverpool, £5 5s.; London, £5. Broad Bran: Hull, £6 7s.; London, £6 7s. Middlings—Fine (Imported): London, £7 7s. Coarse (British): Bristol, £7 5s.; Hull £7; Liverpool, £6 15s.; London, £6. Pollards (Imported): Bristol, £6; Hull, £5 10s.; Liverpool, £5; London, £5 10s. Rice Bran: Bristol, £6 10s.; Liverpool, £6 10s.; London, £5 15s. MEAL:—Barley Meal: Bristol, £9 10s.; Hull, £9 8s.; London, £9 15s. Maize Meal: Bristol, £9 5s.; Hull, £8 7s.; Liverpool, £8 7s.; London, £8 15s. Maize Meal (S. African): Bristol, £8 5s.; Hull, £8; Liverpool, £8; London, £8. Maize Germ Meal: Hull £7 15s.; London, £7 10s. Maize Gluten Feed: Bristol, £9 15s.; London, £8 7s. Maize Cooked Flake: Hull, £10 5s.; Liverpool, £10 5s.; London, £10 5s. Locust Bean Meal: Bristol, £9 5s.; Hull, £9 10s.; Liverpool, £9; London, £9. Bean Meal: Bristol, £13; Hull, £11 17s.; London, £12. Fish Meal: Bristol, £20 10s.; Hull, £18 10s.; Liverpool, £18; London, £17 15s.

EGGS AND DEAD POULTRY.

Eggs are fully equal to requirements, and business is on the dull side. English and best imported are unchanged, except at Liverpool, where prices have weakened, but cheaper imported varieties make less money. Dead poultry continues a dull market, and values are again lower.

Week-end Prices.—Eggs (per 120): British, 11s. 9s. 3d.; Irish (extra selected), 10s. 9d.; Irish (selected), 9s. 6d. Danish (18lbs.), 14s. 3d.; Danish (15½-16lb.), 11s. 3d.; Dutch, brown, 12s. 9d.; Dutch, mixed, 11s. 3d.; French, brown, 12s. 3d.; French, Normandy, 10s. 3d.; French, Brittany, 9s. 0d.; Belgian, 10s. 3d.; Polish, 8s. 3d., 6s. 9d.; Russian, 7s. 9d.

Dead Poultry (per lb.).—Fowls, Surrey, 2s., 1s. 8d. Fowls, Irish, 1s. 6d., 1s. 4d.; Fowls, Others, 1s. 9d., 1s. 6d.; Ducks, 1s. 4d., 1s.; Geese, 1s. 1d., 10½d.

EGGS.

Per doz.—Ashford: 1st, 1s. 5d.; 2nd, 1s. 4d. Birmingham: 1st, 1s.; 2nd, 11½d. Bridgwater: 1st, 1s. 3d.; 2nd, 1s. 0½d. Chelmsford: 1st, 1s. 4¾d.; 2nd, 1s. 3½d. Colchester: 1st, 1s. 3½d.; 2nd, 1s. 2½d. Doncaster: 1st 1s. 3d.; 2nd, 1s. 2d. Dorchester: 1st, 1s. 1¾d.; 2nd, 1s. 1d. Exeter: 1st, 1s. Hereford: 1st, 1s. King's Lynn: 1st, 1s. 3d.; 2nd, 1s. 1d. Llandilo: 1st, 11d. Mold: 1st, 1s. 3d.; 2nd, 1s. 2d. Montgomery: 1st, 1s. Newport (Mon.): 1st, 1s. 2d.; 2nd, 1s. 1d. Norwich: 1st, 1s. 4d. Oswestry: 1st, 1s. Penzance: 1st, 11d.; 2nd, 10d. Saffron Walden: 1st, 1s. 4½d.; 2nd, 1s. 1½d.; St. Ives (Hunts): 1st, 1s. 3½d.; 2nd, 1s. 1½d. Salisbury: 1st, 1s. 1½d.; 2nd, 1s. 1d. Skipton: 1st, 1s. 3d. Swindon: 1st, 1s. 2½d.; 2nd, 11d. Truro: 1st, 11d. Welshpool: 1st, 1s. 2d.; 2nd. 1s. 1d. *Carlisle: 1st, 1s. 3d. *Derby: 1st, 1s. 3d. *Ipswich: 1st, 1s. 4d.; 2nd, 1s. 2d. *Lincoln: 1st, 1s. 3d. *Shrewsbury: 1st, 1s. *York: 1st, 1s. 4d; 2nd, 1s. 3d.

FOWLS.

Per lb.—Birmingham: 1st, 1s. 6d.; 2nd, 9d. Doncaster: 1st, †5s.; 2nd, †4s. 6d. Exeter: 1st, 1s. 6d.; 2nd 1s. 3d. Hereford: 1st, 1s. 8d.; 2nd, 1s. 6d. Llandilo: 1st, 1s. 8d.; 2nd, 1s. 2d. Newport (Mon.): 1st, 1s. 8d.; 2nd, 1s. 2d. Truro: 1st, 1s. 6d, Welshpool: 1st, 1s. 6d.; 2nd, 1s. 4d. *Derby: 1st, †5s. 9d.; 2nd, †3s. 6d. *Ipswich: 1st, 1s. 6d. *Lincoln: 1st, †5s. 6d.; 2nd, †4s. Shrewsbury: 1st, 1s. 9d.; 2nd, 1s. 6d. *York: 1st †5s. 6d.; 2nd, †4s. 6d.

DUCKS.

Per lb.—Birmingham: 1st, 1s. 4d.: 2nd, 1s. 3d. Doncaster: 1st, †5s.: 2nd †4s. 6d. Exeter: 1st, 1s. 3d.; 2nd, 1s. 2d. Hereford: 1st, 1s. 4d. Llandilo: 1st, 1s. 8d.; 2nd, 1s. 3d. Welshpool: 1st, 1s. 6d. *York: 1st, †6s.; 2nd. †5s.

* At these markets the prices quoted are for sales by producers direct to consumers. At other markets prices are those paid to producers by retailers. †Per head.

"Eggs."

The Official Organ of the Scientific Poultry Breeders' Association.

Wednesday, June 30th, 1926.

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Contributions.—The Editor will always be pleased to consider contributions. Criticisms and queries are invited.

Interested readers are asked kindly to mention the existence of "Eggs" to their poultry-keeping friends.

Subscriptions to "Eggs," 12s. 8d. per annum; 6s. 4d. for six months; 3s. 3d. three months, post free.

Subscription to S.P.B.A., 5s. per annum.

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NOTICE TO ADVERTISERS.

Owing to the ever-increasing circulation of "Eggs," it is imperative that new advertisements and alterations are received by FIRST POST ON FRIDAY MORNING to ensure insertion in the following Wednesday's issue. It is hardly necessary to add that the earlier in the week we receive copy the better it is for everyone concerned.

PROOFS.—We cannot guarantee to submit proofs unless complete copy is to hand by FIRST POST ON THE MONDAY PREVIOUS TO THE FOLLOWING WEDNESDAY WEEK'S ISSUE.

INTERNATIONAL EGG-LAYING TEST, 1926-26.

SUMMARY OF LEADING PENS.

Figures are Eggs and Points to date respectively.

Large Breeders. Section 1.—Miss A. Paul, Blairgowrie, 1454, 1607; I. B. Gow, Cobham, 1324, 1436; J. Underwood, Loughborough, 1427, 1458.

Large Breeders. Section 2.—R. Rodwell, Nelson, 1410, 1452; F. Snowden, Cowling, 1435, 1453; G. Mart, Euxton, 1259, 1288.

Large Breeders. Section 3.—C. Bates, Samlesbury, 1477, 1565; R. Rodwell, Nelson, 1485. 1569; J. Potter, Wigan, 1569, 1489.

Large Breeders. Section 4.—F. Harvey, Bretherton, 1554, 1615; R. Rodwell, Nelson, 1581, 1516; W. Beattie, Northampton, 1320, 1485.

Small Breeders. Section 5.—A. V. Wallis, Oxford, 725, 812; H. Seddon, Holmfirth, 695, 760; F. B. Evers-Swindell, Ruthin, 704, 725.

Small Breeders. Section 6.—R. W. Hully, Clifton, Manchester, 537, 605; Mrs. M. B. Clay, Long Preston, 618, 651; W. Ascroft, Tarleton, 556, 615.

Small Breeders. Section 7.—Dr. J. E. Helm, Rossendale, 754, 773; S. and T. Greenall, Grantham, 699, 797; J. and W. Purdie, Lanark, 757, 789.

Small Breeders. Section 8.—R. Hodgkinson and Son, Culcheth, 706, 740; Colonel S. Sandbach, Abergele, 626, 691; R. Rawcliffe, Goosnargh, 664, 684.

Single Bird. Section 9. Light.—A. V. Wallis, Oxford, 161, 206; W. Rogers, Market Drayton, 172, 171; W. Golden, Rugby, 162, 167.

Single Bird. Section 10. Heavy.—P. G. Espinasse, Oxon, 163. 187; Gettern Model P. F., Ainsdale. 168. 171; J. Rainford, Penwortham, 140, 161.

Juvenile Breeders. Section 11. Light.—R. Collinson, Garstang, 669, 694; Miss W. Banks, Freckleton, 637, 654; J. Collinson, Garstang, 662, 675.

Juvenile Breeders. Section 12. Heavy.—H. Sutton, Little Hoole, 757, 760; Miss E. Barron, Catforth, 720, 716; R. Gabbott, Little Hoole, 704, 698.

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1926 Birds.

A few batches of 2½ months old pullets for

12/6 each.

Early Cockerels,
12/6, 15/- and 21/- each.

Special Offer in 1924 Hens.

Owing to requiring four of their large houses for growing stock they have decided to offer the hens occupying these for

6/6 each.

or **£3/15/-** per dozen.

These represent the finest value they have ever offered in Ideal White Leghorns.

LIGHT SUSSEX.

In this variety they have the finest stock on any farm in England, over 1,000 matured birds being on the farm at the time of publication of this number. They are divided into two distinct classes: (a) Trap-nested stock, which have put up records in egg-production and combine stamina with number and size of eggs; (b) finest Exhibition birds, which are also good layers.

Birds available:—

1925 Hatching.

Excellent hens bred from 258-265 hens, mated to cocks bred from hens which laid 268 and 269 eggs in their first year—

15/- each.
Ten for £7.
Unrelated 1925 Cocks,
£1 each.

They offer several batches of Cocks of this age (which have been mated to flocks of 1924 hens and proved to be successful breeders), and can supply these in sets of eight, seven and six at—

£1 each,

for mating to early 1926 pullets in batches, these will be most valuable.

1926 Birds.

January Pullets
21/-, 25/-, and **30/-** each.
All being of outstanding value.
February Pullets, 21/- each.
January hatched Cockerels,
30/-, 35/-, and 42/- each.
February birds, 25/- each.

Two months old chickens, all well grown and promising batches of youngsters—

£3 10s. per dozen.

The pullets from these will be good breeding stock and the surplus cockerels will sell readily for heading matings later on.

CHALLENGE WHITE WYANDOTTES.

This term was first applied to William Cook & Sons' strains many years ago by a large poultry farmer who purchased eggs from St. Mary Cray also from three of the largest Northern farms, his expression being that these strains **challenged competition,** for no matter what price was paid for eggs or chicks better birds could not be purchased anywhere, and he thought not as good. This season's offers are of finer birds than ever—and for size and stamina which results in an excellent flow of eggs, they are not to be equalled by any other strains of this breed.

1925 Birds Offered.

Good hens which were bred from 265-272 egg hens mated to cocks bred from 276 to 279 egg hens.

15/- each.

A few 1924 hens which are well worth buying for breeding from next season as they are all special birds,—

10/6 each.

10 for £5.

Unrelated Cocks, 20/- each.

Early 1926 Stock.

Exceptionally fine January Pullets. Early Birds, 25/- and 21/- each, and from end of January hatchings, 19/- each.
February Pullets,
18/- and 16/- each.
A few choice January cockerels,
30/- and 35/- each.
February Birds.
25/- and 30/- each.
Two months old chickens from Class III. matings only—
£3 10/- per dozen.

BOX and BASKET DEPOSITS, which are returned in full on the day the empties are received:—

Box for one male bird	2/6
Basket for one male bird	7/6
Basket for six to ten pullets	10/-
Basket for breeding pen of six or ten hens and male bird	12/6

Every bird offered has been hatched and reared by William Cook & Sons, whose object always has been to provide purchasers with dependable stock at moderate prices, and those who are able to visit their farm will be in the position to advise friends who cannot do so that the value of the birds offered is quite exceptional.

Last Despatching Dates for Chicks—JULY 1st and 5th.

PRICE OF ALL CHICKS AND EGGS:—
CHALLENGE WHITE WYANDOTTES
RHODE ISLAND REDS
(Invicta Non-Broody and their Older Strains)
LIGHT SUSSEX
IDEAL WHITE LEGHORNS
and
PREMIER BLACK LEGHORNS

Class I.	EGGS	4s. 0d.	per dozen	£1 10 0 per 100
,, I.	CHICKS	7s. 6d.	,,	£2 10 0 ,,
Class II.	EGGS	5s. 0d.	,,	£2 0 0 ,,
,, II.	CHICKS	9s. 0d.	,,	£3 10 0 ,,
Class III.	EGGS	6s. 0d.	,,	£2 10 0 ,,
,, III.	CHICKS	10s. 6d.	,,	£4 0 0 ,,

MIXED HEAVIES also **MIXED LIGHTS**
6/6 per dozen
25/- for 50
50/- for 100
Selection to be left to W.C. & S.

SAFE DELIVERY TO ALL STATIONS GUARANTEED.

Inspection of their farm is cordially invited on every week-day—including all day Saturdays. St. Mary Cray is only 14 miles from London—Victoria, Holborn and St. Paul's (Southern Railway, S.E. and C.R. Section), and as the farm is 1½ miles from Station, conveyances are sent to meet trains by appointment.

Their Telephone Number now is ORPINGTON 7, in place of Cray 7; but it is important that readers should note this is the only mention of Orpington to be made in communicating with them.

By mentioning "Eggs" their current advice on Growing Birds will be sent from their

Only Address: ST. MARY CRAY, KENT.

A REMARKABLE TRIBUTE

Writing to us on June 22nd, Mr. Charles Kent (M.S.P.B.A.), of The Mount, Shirley, Derby, uses the following phrase:—

"... Through VISOL I am increasing my head of stock to MORE THAN DOUBLE this year."

What confidence! What security! That's the sort of feeling regular users of VISOL get—they know that, come what may in the shape of outrageous weather or disease epidemic, they are safe when VISOL backs them up!

Here's a word or two of sound advice:

Watch your growing Pullets closely; look particularly at their nostrils and throats; when a bird first contracts a "summer" cold it may cause her to cease to breathe through her nostrils, which means that a thickened saliva soon collects, caused by breathing through the mouth, and forming a cheesy exudate in the windpipe that develops so rapidly as to cause death by asphixiation in a few days. The only outward and visible sign in this case is a laboured breathing, the bird occasionally being found struggling for breath with its mouth open. Another variation is that she may develop a nostril choked with mucous and a watery, frothing eye—the first stage of the dread Wet Roup.

Whichever way it is, you must trace that mucous, and you must eliminate it. Press the nostrils on each side and exert pressure on the cleft palate in the roof of the mouth, afterwards dip and swab with VISOL solution and follow with the usual doses of VISOL in drinking water and wet mash.

Remember .... VISOL is your standby in summer just as much as in winter. Follow Mr. Kent's wonderful lead—you also can safely double your stock if you pin your faith on VISOL.

PRICES.

10 gals., £5.
5 gals., £2 17s. 6d.
Wooden Casks, 10s. extra.
(Carriage forward per goods train.)

1 gal., 15s.
Stone jar included free.
(Carr. paid in England and to English Ports.)

VISOL

ROYAL SHOW: VISOL will be there—Stand 169 (between Stonehouse Works and Vitex Co.), and Mr. Brain will be glad to see old friends and new.

VISOL LABORATORIES
: WEST BROMWICH :

MEAT and
BONE MEAL?

THEN IT'S

"DENTO"

THE BEST
Therefore
THE CHEAPEST

For Samples and Prices write :—

The Denton Manufacturing Co.,
(Dept. M) NEWHAVEN, SUSSEX.

THE
MARTSMITH SPRAYERS

Can be used for Whitewash or Disinfectant.

ALL SIZES AND PRICES.

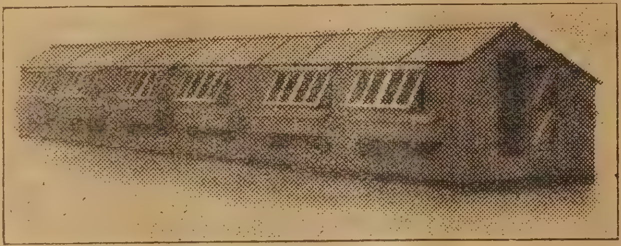
Send for Catalogue.

The only way to cleanse cracks and crevices in buildings from disease and insect pests.

MARTINEAU & SMITH,
HOLLOWAY HEAD - BIRMINGHAM.

COMPARE THESE PRICES.

The "ROYAL" Laying House, as supplied to
H.R.H. THE PRINCE OF WALES.



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Semi-span roof as illustrated; outside nest boxes with felted tops, Floor Lights in back and front, as shown. Complete in every detail.

Sizes and Prices, including Floors, Roofs Felted and Treated Preservative.

No. 1.—10ft. x 10ft. x 7ft. 6in.	... ...	£18 10 0
2.—20ft. x 10ft. x 7ft. 6in.	... ...	30 10 0
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Carriage Paid 100 miles.

Larger sizes quoted for on receipt of particulars. 5 per cent. Discount allowed to Members S.P.B.A. and N.U.P.S.

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W. & T. MARKHAM (Dept. "A"), Queniborough, Leicester.

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Registered Trade Mark.
THE NAME "CARMAC" IS A GUARANTEE OF QUALITY.

DRIED
MILK POWDER

SWEETENED
CONDENSED MILK

FOR CHICK REARING.

Get our Prices before ordering elsewhere

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6, BROAD STREET, RATCLIFF,
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And at BRITANNIA MILLS, HEATHFIELD, SUSSEX.

PAUL'S POULTRY FOODS
LOWER THE COST OF PRODUCTION

Easily Digested and Assimilated. All Food Value and of Absolute Purity

PAUL'S
EGG-EM-ON
CEREALS—Cooked and Flaked.
THE BEST AND MOST ECONOMICAL BASIS FOOD FOR POULTRY.
SHOULD BE INCLUDED IN ALL RATIONS.

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LAYING MEAL
A COMPLETE FOOD.
WILL PRODUCE AN ABUNDANCE OF EGGS AT THE LOWEST POSSIBLE COST.

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DRY CHICK FOOD
COOKED AND FLAKED,
WILL ENSURE STURDY GROWTH, VIGOROUS HEALTH, AND A STRONG CONSTITUTION.

PAUL'S SCREENED, GRADED and DEGERMED MAIZE GRITS.
FREE FROM MEAL AND DUST, AND THEREFORE NOT WASTEFUL WHEN THROWN DOWN.
WILL NOT PRODUCE AN EXCESS OF OBJECTIONABLE YELLOW FAT.
UNDOUBTEDLY THE BEST FORM IN WHICH TO FEED RAW MAIZE TO POULTRY.

For Fattening—PAUL'S ENGLISH MAIZE GERM MEAL
RECOMMENDED BY THE POULTRY JOURNALS.

Samples, Booklet and Prices Free on application to SOLE MANUFACTURERS—
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ALEX. J. BELL, M.S.P.B.A., U.D.C., Longwick, Princes Risborough, Bucks. Rhode Island Reds (Boucher). Eggs, Stock Cockerels and Pullets. List free. Satisfaction insisted on.

EGGS AND CHICKS.

FOR SALE.

"DAILY MAIL" CROSS-BRED TEST, 1925/6.
Three winter months.
SECOND PLACE, PULLET SECTION.
Selected good stamina Pullets of pure-bred W. Wyandottes and R.I. Reds can be booked for dispatch when in lay; 15s. each; deposit 5s. Cockerels by enquiry. R.I. Reds (Sandhills - Golden, Boucher), and W. Wyandottes (Sandhills' large eggs). J. A. Brawn, Sandhills Poultry Farm, Shire, Oak Hall, near Walsall, Staffs.

DERRINGSTONE POULTRY FARM.
RHODE ISLAND REDS, LIGHT SUSSEX, WHITE, BROWN, & BLACK LEGHORNS.
SITTINGS FROM 5/- PER DOZEN.
THREE-MONTH-OLD PULLETS 7/6.
BREEDING PENS FROM £4 4s.
Orders booked for Ready-to-Lay Pullets.—P. F. Gleed, Derringstone Poultry Farm, Barham, near Canterbury.

REDUCED PRICES.

Eggs and Chickens from our famous Trap-nested, hardy strains of heavy layers. R.I. Reds, Wyandottes, Sussex, Orpingtons, Rocks, Leghorns, Anconas.

EGGS.
6s., 12; 10s., 26; 17s. 6d., 50; 30s., 100.
Unfertiles replaced.

DAY-OLD CHICKS:
10s., 12; 20s., 25; 37s. 6d., 50; 70s., 100.
Live delivery guaranteed. All Eggs and Chickens guaranteed from our own flock of nearly 5,000 selected birds on exposed grass runs. You cannot obtain better value at any price. We have hundreds of regular customers. Will you become one Send for free Illustrated Catalogue. Special reductions for large orders.

EASTMAN BROS.,
SUFFOLK POULTRY FARM, HADLEIGH.

CUSTOM HATCHING.

[illegible] per 150. £8 per 1,000 Chicks returned carriage paid — "Little Hadlow" Poultry Farm, Hadlow Down, Sussex.

EGGS AND CHICKS.

FOR SALE.

100 CHICKS, 39/-.

Boxes free, carriage paid up to London, aerial travel two hours. Pure-bred White Leghorn, White Wyandotte, Black Bresse, Salmon Faverolles. Catalogue free. — Etablissements, "Chanteclair," Chaville (S et O), near Paris (France).

COCKS AND COCKERELS.

FOR SALE.

Twelve White Leghorn 1927 Breeding Cockerels, three months old; dams, Atkins; sires, Allen Bros. No. 1 pen; 12s. for three. Carriage paid. Approval cash or deposit. —Maurice Best, Poultry Breeder, New Farnley, Leeds.

February and March hatched W. Leghorn Cockerels, from highly fecund stock; 10s. 6d. and £1 1s. each. — Mrs. E. Kaye, M.S.P.B.A., Pool. Winner of Silver Medal (W. Leghorn Section), Yorkshire Laying Test, 1924-1925.

White Leghorn Cockerels, three months old, by son of "Gloster Progress," out of excellent hens; 10s. each.—Elisha, M.S.P.B.A, Fifield, Maidenhead.

Eight 1925 Leghorn Cockerels; Miss Ransford direct; full particulars given; no reasonable offer refused.—Scott, Helmingham, Stowmarket.

R.I.R. Cockerel, three months old, from tested parents; 10s. 6d. each; six carriage paid; crates free.—E. W. Spencer, Holly Lodge, Lawford, Manningtree, Essex.

Lovely Light Sussex Cockerels, from Extra Special Pedigree Strains; February, March, and April hatched; 15s., 12s. 6d., and 10s. each.—Alex Wilson, M.S.P.B.A., Bankhead Poultry Farm, Bucksburn, Aberdeen.

F. K. MAXTED, TEYNHAM, KENT.
Rhode Island Red and Light Sussex, February 20th; Cockerels (W. Cook and Sons). Large strong birds, coming good colour; 12s. 6d. each. Also White Wyandottes of all ages; three months, 7s. 6d. each. Reared on unlimited range; sound and healthy. See S.P.B.A. Register, page xxxiv.

PHILIP CLAPHAM.

Three-Month Cockerels, Wyandotte and Buff Rock. Individual pedigrees, from 21s.; Pen pedigrees, from 10s. 6d. Reared free range. List free.—Sherriffs, Lyonshall, Herefordshire.

JOHN WAKEFIELD, SUCCESSOR TO REV. SEYMOUR SHAW, WARCOP, WESTMORLAND,

Offers Stock Cockerels, four months old, at 7s. 6d. W. Leghorns, W. Wyandottes, Buff Rocks. Approval with pleasure. Also Breeding Pens and One-Year-Old Hens.

PULLETS.

FOR SALE.

White Leghorns. Pullets, Cam's; records 220-284; sire's dam 275; 4-4½ months; 10s.; three months, 8s. 6d.; two months, 7s. Cockerels, 6s.—10s. each.—Ekins, Grange P.F., Doddington, Wellingboro'.

PULLETS.
Light Sussex and White Leghorn Pullets, three months upwards, from 7s. 6d.—Major Disney-Roebuck, Hoo Meavy Poultry Farm, Yelverton.

PULLETS.

FOR SALE.

Ten W.L. Pullets, four months; reared from eggs from Priest and Shaw's Pen 1; 8s. 6d. each.—Davy, Selwyns P.F., Waldron, Sussex.

Four Light Sussex Pullets, 4½ months; 10s. each; younger birds, also R.I.R. and Leghorn Pullets.—Ford Lane Poultry Farm, Northenden, Cheshire.

R.I.R and W. Leghorn Pullets; three months, 6s. 6d.; four months, 9s. All on free range.—Bourne, Mundford, Norfolk.

Well-bred Light Sussex, January and February hatched Pullets and Cockerels, 10s. each.—Rectory, Stoke-Climsland, Cornwall.

White Wyandotte Pullets; three and four months old; from 6s. 6d.—Captain Lewin, R.N., Newport, Essex.

Strong, healthy 1926 Pullets, from trap-nested Black Leghorns and Red Sussex, from 10s. each. — Mrs. Coldwell, Spring Grove, Milverton, Somerset.

R. Carpenter, "Alderbrooks," Furners Green (12 years breeder high-class Utility Light Sussex and R.I. Reds) has good Pullets and Cockerels to offer at reasonable prices. Reared on exposed free range.

50 White Wyandotte Pullets, 20 Rhode Island Red Pullets, 20 Light Sussex Pullets. All the above are well bred; hatched January-February; some now laying; 10s. each. Also several Cockerels; 10s. each.—L. Mawby, Wykeham, Spalding.

Look! Grand Rhode Pullets, Feb. and March hatched, 1926; Measures' strain; 8s. 6d. each. Also 100 First Cross Pullets, February and March hatched; 6s. each. All these birds I guarantee healthy; carriage paid. Approval. — H. Lake, Ferguslea, St. Lawrence, Bungay, Suffolk.

ST. OSYTH'S PRIORY POULTRY FARM, Essex. **W. Leghorn and L. Sussex Pullets; three months old pullets; ready now and onwards; 5s. to 10s. each, according to age and record. Also Stock Cockerels.**

500 PULLETS.
Well-grown, healthy stuff, reared on free range, from high laying strains; February, March and April hatched; W. Leghorn, R.I.R., and B. Leghorns-Light Sussex Cross. Soon be laying. For disposal owing to farm being given up; 5s. to 8s. 6d. per head.—Wilson, Sutton Poultry Farm, Seaford, Sussex.

3-MONTH-OLD PULLETS.

Light Sussex and Rhode Island Red.—Lieut.-Comdr. Kingdon, Springfield, Stockbridge.

FIRST CROSS PULLETS.

Now Booking for June Delivery onwards. 2-months-old Pullets, 4s. 6d.; 3-months-old Pullets, 5s. 6d.; 4-months-old Pullets, 7s. Carriage paid. Cash with orders, or deposit.—Great Fransham P.F., Fransham, Norfolk.

EXTRA SPECIAL SUSSEX,
Bred from hens with records of 250-260 eggs in pullet year; all beautiful specimens, February and March hatched; 10s. 6d. and 8s. 6d. each, all carriage paid. — James Wilson, junr., S.P.B.A., Piked Edge Poultry Farm, Colne, Lancs.

PULLETS.

FOR SALE.

Hugh Kershaw, M.S.P.B.A., The Old Rectory, Keighley; Aylesbury Ducklings hatching weekly; all bred from prize winners; 14s. dozen; eggs, 7s.; average weight of drakes 10lbs

1926 Hatched Buff Rock Pullets, bred from sisters to my Gold Medal Winners, "Serial" Laying Test, 1924-1925; February, 10s.; March, 7s. 6d. Carriage paid. Approval.—P. Jarvis, The Poultry Farm, Huttoft, Alford, Lincs.

Three and Four Months old Black Leghorn Pullets, from our Gold, Silver, and Bronze Medal strain; 10s. and 12s. 6d. each; specially selected 15s.; healthy and sound. Approval; deposit with Editor.—Thomson, Penypylle, Holywell, Flints.

White Leghorns, nine weeks old; Barron-Snowden strain; 4s. 6d. each.—Albert Wilkins, Purbrook Poultry Farm, Hookwood, Horley, Surrey.

Rhodes, hatched 1925; Eight, splendid layers; must sell. What offers —Shirley, Parklands, Surbiton Hill.

WHITE LEGHORN PULLETS,

From 200-egg dams; Frank Snowden strain; three months, 8s.; four months, 9s.; five months, 10s.; 5 per cent. reduction on 50. All above are well grown; grass range.—Goodwin, Park Road, Loughborough.

PHILIP CLAPHAM.

Special Offer for week till 9th July Wyandotte Pullets (1926), from trapped dams; minimum 175 2oz.; 10th February, 10s.; 6th March, 9s.; 28th March, 8s. Carriage paid on ten.—Sherriffs, Lyonshall, Herefordshire.

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FOR SALE.

Genuine Typical Laying Stock, 1925 Pullets, for Breeding Pens, with magnificent cocks, fit for show pen; all sent on approval. Pen of Ten Pullets and Cock, £4 10s., or larger numbers quoted for, of Rothchild's Light Sussex, Cam's White Wyandottes, Barron's White Leghorns, Hunter's Black Leghorns, Schimnel's Barnevelders, Measures' Rhode Island Reds.—Mrs. Porter, Dishley Grange, near Loughborough.

White Leghorns and Rhode Island Reds; Male and Nine 1925 Pullets; three guineas per pen. Also 1925 Pullets at 7s. 6d. each.—Wicks, Chalk Dells, Garston, Herts.

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W. LEGHORNS, R.I.R., L. SX.

Valuable Proved Pens, 70s., containing ten Hens, 1924, pedigree unrelated; 1925 Cockerels, including Ransford-Golden and Falkenstein direct.—Dr. Harbord, Detling Hill, Maidstone.

FAMOUS PEN CHEAP.

My famous pen of Eight Light Sussex, with pen average of 271 eggs per bird, will go to first offer over £8 8s. Ten other Sussex, with averages over 200; 10s. 6d. each. Twenty-four beautiful dark R.I.R., records over 200, same price. Thirty White Leghorns, with averages over 225, 12s. 6d. each. All crariage paid six or more. Crates, 10s. 6d., refunded on return.—Bygrave, S.P.B.A., Meonathol Pedigree Farm, St. Leonards, Ringwood.

DUCKS AND DRAKES.

FOR SALE.

Miss Harrison Bell, U.D.C., Welwyn, Herts. Breeder, Khaki-Campbell and White Runner Ducks. Winner of Silver Cups, Silver and Bronze Medals, in Official Laying Tests. Day-old Ducklings, 17s. dozen; £6 10s. per 100. Eggs, 5s. dozen; 36s. per 100. Ducklings, month old, 50s. dozen. Drakes, 12s. each. Everything sent carriage paid.

Fawn and White Runner Ducks. Pen 1, headed son of "Puxley Belle" (350 eggs in 365 days). Ducks' everage 153 in six winter months; year, 278. Sittings, 10s.; 2½-3oz eggs.—Hemelryk, Old Mill, Partridge Green.

To give you a start in Khaki-Campbells and White Runners, Laying Test Winners. Eggs, 5d. each; 36s. per 100, carriage paid. Early Drakes, 10s.—Miss Harrison Bell, Welwyn, Herts.

Will Bancroft (M.S.P.B.A.), Westfield Farm, Haworth, Yorks., offers hen hatched week-old Massive Aylesbury Ducklings; 12s., doz.; day-olds, 11s. Fertile Eggs, 5s. dozen. Buff Orpingtons, same price, all carriage paid. Catalogue and testimonials free.

AYLESBURY DUCK EGGS

From large, healthy stock; guaranteed 90 per cent. fertile; 6s. per dozen; 45s. per 100; carriage. Ducklings, 15s. dozen, carriage paid.—Richards, M.S.P.B.A., Hambrook, Emsworth, Hants.

Choice Fawn White Runner Ducks and Drakes, 1925 (Wilson's direct). To clear for change of address; 8s. 6d. each.—Martin Ellis, Shrigley Vicarage, Macclesfield.

TURKEYS.

FOR SALE.

40 1st of April hatched Mammoth Bronze Norfolk Turkey Poults; beautiful birds; 6s. each.—Lake. (See Pullets).

GEESE.

FOR SALE.

Strong, hardy Norfolk Goslings, Embden Toulouse cross, fortnight old, 4s. 6d.; month, 5s. 6d.; six weeks, 6s.; eight weeks, 6s. 6d.; Aylesbury Ducklings, fortnight old, £1 doz. Live delivery guaranteed; carriage paid. Approval, cash or deposit.—Arthur Leist, Mutts Farm, Denton, Harleston, Norfolk.

Goslings. Massive Birds, one month old; 5s. 6d. each; two months old, 6s. 6d. each. All carriage paid. Approval.—Lake. (See Pullets).

RABBITS.

FOR SALE.

Buy now. Promising Young Angora, from 7s. 6d. each.—Greatorex, Broadclyst, Exeter.

"HOW TO MAKE MONEY

by Angora Rabbit Wool Farming." Price 1s. 3d. The Lady Rachel Byng, High Sandhoe, Hexham, Northumberland, has a few Vacancies, Lady Apprentices; three or six months (non-resident) Premium, three months, £10 10s., six months, £15 15s. Salaried posts found for suitable pupils at end of six months. Daily Students, 42s. weekly, or part of week. All fees payable in advance. Exhibition and Wooling Stock for sale.

RABBITS.

FOR SALE.

Pedigree Chinchilla Rabbits for Sale; all ages, from 15s. to £3 3s.—Mrs. Delamere Bouth, Marlands, Wellington, Somerset.

For Sale, Pedigree Angora Rabbits; perfect specimens; three months old; £2 2s. each.—Mrs. Delamere Bouth, Marlands, Wellington, Somerset.

Pedigree Chinchilla Buck; eight months; sire, "Heaseland's Crown Prince"; Bostock Smith's strain direct; one guinea; carriage paid. Also Doe (litter sister), with litter of six; 45s.—William Hurdman, Canadia, Battle.

Pure-bred White Angora Rabbits. Doe, 15s.; Buck, aged 17 months, £2; brought from Lady Rachel Byng; Two Does, 10 months, £1 each; Buck, 10 months, 30s.—Apply, Miss Holford, The Moor, Ludlow, Salop.

Wooling Angoras, of the finest strains; three months old; 15s. per pair; beautiful does; mated to good bucks; 21s. to 42s. Stud Bucks from 15s.; approval.—Elisha, M.S.P.B.A., Fifield, Maidenhead.

E. BOSTOCK SMITH,

Breeder of Angoras, Chinchillas, Havanas, Blue Beverens, Black and Tans, Argente de Champagne, having had a most successful breeding season, can offer Young Bucks and Does in all varieties, at most reasonable prices. These are bred from the rabbits that won so consistently last year, including the 1st, Crystal Palace; 1st, Bedford; 1st, Alsagar; and many other winning does. Their sires were equally successful in the buck classes, and include "Heaseland's Masterpiece," winner of three 1sts and Silver Spoon, under three different judges, at his first three shows; "Heaseland's Charmer," winner of four 1sts, and many 2nds and 3rds, frequently second to my other bucks. If your stock is lacking in strength, density and texture, these youngsters, bred in most cases from winners on both sides, cannot fail to improve the weak points.—"Heaselands," Barham, Canterbury.

GREEN FOOD FOR RABBITS.

It often happens that during a hot, dry Summer nature's supply of rabbit food fails. You can avoid any shortage by planting Chicory now. Not only is this one of the best "cut-and-come-again" crops that you can grow, but its food value is very high, and keeps rabbits in splendid condition.

GOOD STRONG PLANTS.
2/6 per 50.
4/- per 100.
12/6 per 500.
30/- per 1,000.
Post Free.

E. BOSTOCK SMITH,

"Heaselands," Barham, Canterbury.

DOGS.

FOR SALE.

Pedigree Airedale Puppies; eight weeks. Dogs, £2; Bitches, 30s.—T. Shorthose, Koraput P.F., Bewdley, Worcs.

APPLIANCES.

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Creosote, 42 gallon cask, 49s.; 10 gallons, 14s. Black Varnish, 10 gallons, 15s. Disinfectant Powder, 7 lbs. 3s. 3d.; cwt., 15s. All carriage paid, packages free.—Heaps, 82, Garnett Street, Blackburn.

Egg Boxes, hold 30 dozen; complete; fittings as new; 1s. 6d. each.—Low, 9, Elm Park, Brixton.

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FOR SALE.

ixty-four Trap-Nest Fronts; strong wood d wire; simple; hinges and buttons or oks: complete; £3 the lot, carriage id. Clapham, Lyonshall, Herefordshire.

Fittings and Felts for Egg Boxes; any ze made; state wants.—Hodges, 12, Baldin Terrace, Peter Street, Islington, ndon.

FOX'S TRAP-NEST FRONTS.

s dozen; sample three, 6s.; carriage paid. Fox, Hebron, Colnbrook, Bucks.

UPERFELT 25% DISCOUNT.

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"GRAVO" CEDAR LITTER.

he Best and Cheapest Litter for Poultry ouses, Brooders, Nest Boxes, for packing ggs and day-old chicks. Prevents paraites, remains clean and fresh; in ½cwt. acks; 5s. 6d.; two for 9s. 6d.; four for 17s. s.; 10 for 37s. 5d.; carriage paid to your ailway station. — Sole Distributors: D. G. Appliance Co., Ltd., 31, Aldernan's Hill, London, N.13.

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SPICK GRIT.

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One shell, grit or stone will not give you erfect results. Spick Grit is scientifically lended and will; 8s. cwt., carriage paid, r all corn dealers, in smaller bags. — iverine, Limited, Grimsby.

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Chick or Adult Size, 3s. cwt.; 50s., ton. imestone Flour for Mashes, 4s. 6d. cwt.; 6s. ton, f.o.r Send for samples.—E. Thornill. Great Longstone. Derbyshire.

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No standby like Brussels Sprouts for the arly-hatched. Plant now to be ready. Strong fresh plants, 8s. 6d. per 1,000; mixed ots Cabbage, Savoy, Cauliflower, Early Brocoli, Lettuce; same price. Carriage paid.—C. W. O. Haward, S.P.B.A., Cowplain, Cosham, Hants.

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Roup Paste in tubes for the drinking water. Just squeeze a little into the water, and it cures and prevents roup in fowls; also disinfects the water. The birds can get it on an empty stomach. Easy to carry round the farm. All dealers sell 6d and 1s. 6d. tubes, or four 1s. 6d. direct post free, 5s. 6d. — Liverine, Limited, Grimsby

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Coccidiosis Cure, from formula of well-known D.Sc.; save thousands; 3s. 6d., 5s. 9d., 21s., 39s. Gapes Preventive, as used continually by largest breeders; 3s 6d., 5s. 9d., 21s., 39s. Gapes Powder, for killing the worm in the windpipe by inhalation, 2s. 4d. Special Bellows for administering the Powder; 3s. Tonic Powder, 3s., 5s. 3d. Roup Cure, wonderfully successful, never fails, 3s., 4s. 9d., 9s. 9d. Tonic Pills and Roup Pills; 1s. 9d., 2s. 9d. All c.p. Also other remedies.—J. Carlton Hunting, Gaybird, Ltd., Great Missenden, Bucks. 'Phone 58.

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"DIPTH" (Non-Poisonous).

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THE NEW AND SURE CURE AN-PREVENTIVE for ROUP, CHICKEN-POX, CANKER AND COLDS IN FOWLS, TURKEYS, PHEASANTS AND PIGEONS.

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Vacancy on Small Poultry Farm for One or Two Pupils; practical, personal training in incubating, rearing, marketing; also fruit and vegetable growing.—Misses H. and S. Bishop, Hilbre Poultry Farm, Rotherfield, Sussex.

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TO BE LET, FURNISHED.

Bentley, Hants. In isolated position, one mile from village, two miles from station, commanding beautiful views. Old-fashioned Farmhouse and 6½ acres of land, including matured orchard and paddock. The House contains three reception, four bed, bath, etc. Coach-house, two-stall stable and barn. Stock of poultry, pigs, and poultry houses at valuation. Rent £60 per anum. Lease of nine years. — Apply, Sole Agent, Sidney H. German, F.A.I., Estate Offices, Farnham, Surrey. ('Phone No. 84).

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FOR SALE.

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Poultry Farm, near Bournemouth, and three good markets. Pretty Six-Romed Bungalow, 8¾ acres (more available), 700 head of stock. Incubator capacity, 1,000; Brooders for 1,600 chickens; bees, goats, wool and fur rabbits. Big motor cycle delivery outfit. Retail connection for eggs, poultry and honey included. The whole Freehold, and without restriction, £1,950 all at, or close offer.—Box 183, "Eggs," 94, Farncombe Street, London, S.E.16.

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TWO SELF-CONTAINED PICTURESQUE BUNGALOWS,

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Poultry and Houses at valuation (optional)
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5-ROOMED HOUSE, BATH.

Main water; rent £32; four acres cropped, acre poultry runs, half acre fruit,; kitchen garden; poultry and appliances at valuation, optional. Immediate possession. Offers for stock. 50 Pullets, March hatched. —Hobbs, 16, Church Lane, Chalk, Gravesend.

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Partner, with capital, to increase the scope of progressive business in proprietary minerals for poultry, pigs, etc. Capable salesman, who would be a personal asset preferred.—Write, stating qualifications, Box 187, "Eggs," 94, Farncombe Street, London, S.E.16.

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BUFF ROCKS, GOLD AND BRONZE MEDALS, HARPER-ADAMS, LIGHT SUSSEX.
A few hens from 8s. Also Pullets, Cockerels, and Breeding Pens.

February Leghorns, from Ransford Special Cock and our Competition Hens. Cockerels, 14s.: Pullets, 15s.—Major Williams, Perranwell, Cornwall.

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MISS HASLER, FRINTON-ON-SEA.
Offers well-grown R.I.R. Cockerels and Pullets, February and March, pedigreed, from 15s. and 12s. 6d.

RIPLEY RECTORY HARROGATE.

Mr. Oswald Lister will sell by Auction on Thursday, July 1st, 150 Pure-bred Pedigree Hens, Cocks, and Cockerels, R.I.R., W.W., W.L., together with 16 Poultry Houses, sizes 32 x 12, 16 x 8, 12 x 8; all in good condition. Hovers, Appliances, etc. Sale commences at 1.30 p.m.

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1925 Hatched White Wyandottes, Pen 1 birds, from Mr. W. H. Cook, of Orpington.

IN FULL LAY.

Room urgently needed; £5 for immediate sale, or 8s. 6d. each. Heavy winter layers.

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BOSTOCK SMITH COCKERELS.
Grand Light Sussex, well marked, handsome and massive framed; hatched February, 1926; from Pen 1 sittings; 15s. each. Approval willingly for cash.—Miss Graham, Branstone Lodge, Burton-on-Trent.

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Poultryman Required, experienced in hatching, rearing, trussing and preparing birds for table.—Apply, with full references stating nationality, M. or S., age, etc., month's trial suggested, to MacDonald Sutor, Greenway Court, Hollingbourne, Kent.

Young Gentlewoman, as Assistant-Improver on Model Pedigree Poultry Farm; small salary and board residence offered.—Box 179, "Eggs," 94, Farncombe Street, London, S.E.16.

Poultryman, experienced all branches for farm in construction; Touraine, France; 25 to 40 years; single; ex-service preferred; willing to live and share all work with owner and Assistant Englishmen bachelors, one of serious mind, but cheerful disposition sought; board, lodging, washing, etc.; 200 francs a month for first six months, increase 50 francs each six months to 300 francs.; further agreement later; third class fare from London to Huismes; must be free to commence on engagement. French not essential.—Applications, with reference, to A. D. Bagnall, La Touche, Huismes Indre and Loire, France.

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Advertiser seeks Post as Improver on Poultry Farm; had 18 months' experience; willing worker.—Apply, William Pain, Normanton Park, Empingham, Rutland.

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Good prices for good birds. — A. Haworth-Booth, Balcombe, Sussex.

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COMMERCIAL POULTRY FARMER WANTS TO MAKE ARRANGEMEN NOW TO BUY 500 THREE-MONTH OLD W.L. PULLETS, HATCHED MARCH, 1927. DELIVERY FOLLOWING JUNE. State PRICE and FULL PARTICULA
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The following Courses in POULTR KEEPING will commence at the abo College on September 28th, 1926:—

Certificate Course ... ... 12 weeks.
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For Prospectus, apply The Princip Sutton Bonington, Loughborough.

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GENTLEMAN'S CHARMING RESIDENCE,

And **Latest Modern Poultry Equipme and Model Farm Buildings.**

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Very Choice Freehold Property, in fu working order, and quite up-to-date. The residence stands high, is approache through drive, and has four bedroom bathroom, two reception rooms, etc.; el floors, grand fireplaces; main water.

For Sale, Auction, 14th July.
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Owner Going Abroad.
NEWBURY DISTRICT, BERKS.

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A **Gentleman's Small Pleasure Farm,** present being run as a Poultry Far comprising **Gentleman's Old - Fashione House,** with **Farmery,** and 22 acres of gra land, with fruit trees. Can be purchase with or without the whole of the **Pure-bre Poultry** and **Appliances,** which will be So by Auction on JULY 23rd, 1926.
Auctioneers: **Messrs. Nicholas,** Station Road Reading.

YOUNG PULLETS

Pure-Bred Pedigree Stock which will give you absolute satisfaction. It will pay you to renew your flock now with our noted laying strains.

White Leghorns

Three Months Old ... 8/6 each.
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Carriage paid. 3 days approval.

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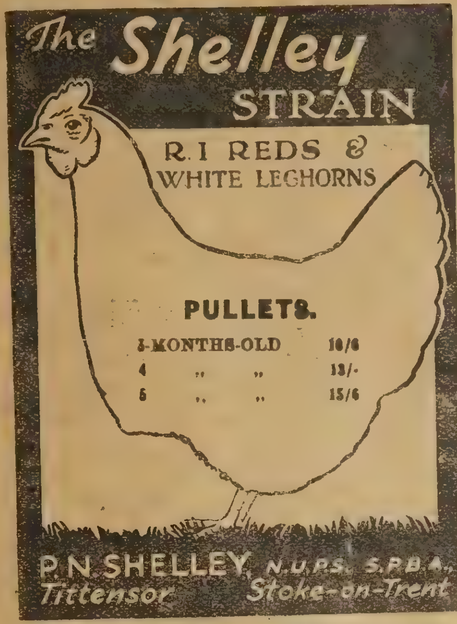

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3-MONTHS-OLD 10/6
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Messrs. JOHNSON and SONS, Instructed by Mr. F. W. Wait (who is retiring from poultry farming), will Offer for Sale on JULY 8th, at 10 30 a.m.

800 Leghorns, R.I.R, and 'Dottes, 3,000 yards Wire Netting, 400 Pine Posts, and a large quantity of **Incubators, Brooders,** and **Small Appliances.** Total, 540 lots, including Six Large Laying Houses, 72 x 16; 25 Small Ditto.

Mr. R. Fletcher Hearnshaw, Burton Joyce, has kindly consented to select birds for S.P.B.A. Members, if cash, carriage, and full instructions are forwarded to him previously. Catalogues ready.

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For particulars of the Society and free copy of the Journal, apply—

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HAVING finished breeding for this Season, I am breaking up my pens and will sell either complete pens or individual hens or cockerels at exceptionally reasonable prices. Here is an opportunity of securing some of the actual stock with which I have obtained such wonderful results. It is not often such a chance occurs, and if you want to improve your stock by the introduction of some of the best blood in the country, you can do it without incurring a big expense. Let me know just what you want, and I will tell you how I can meet your requirements. Write to me now, while the biggest choice is available.

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Pedigree Utility Poultry
"Heaselands," Barham, Canterbury, Kent.

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Prices on application.

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18 GOLD MEDALS, FIRST PRIZE WON WITH MY STRAINS IN OPEN BRITISH AND AMERICAN INTERNATIONAL LAYING TRIALS.

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THIS YEAR AGAIN FIRST OVER ALL RHODE ISLANDS REDS IN AMERICA (MISSOURI INTERNATIONAL TRIALS).

A greater record of prizes has been obtained in official laying competitions with birds bred from stock obtained direct from me than from those obtained from any other Rhode Island Red Breeder in the United Kingdom.

This Hen, No. 225, laid 207 eggs Lancashire Laying Trials, 1924-25.

I consider this Hen a model Utility Rhode I. Red, and she exactly represents the Type I aim to breed.

Why is my Strain of R.I. REDS the MOST PROFITABLE in existence?

BECAUSE it combines HIGH WINTER EGG YIELD with GOOD GRADE and GOOD EGG COLOUR.

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BECAUSE it combines NATURAL HARDINESS (known as the hardiest fowl on earth), with outstanding BREEDING VIGOUR, so noticeable in its FERTILITY and PREPOTENCY to HATCH and REAR, etc.

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MY BREEDING IDEAL has been to COMBINE IN BALANCE all the above ESSENTIAL UTILITY CHARACTERS.

I NOT ONLY BREED THE BEST BUT I SELL THE BEST.

THREE MONTHS OLD STOCK COCKERELS & PULLETS

Now Ready. Prices: 12/6. 15/-, 21/-, etc.

A LIMITED NUMBER TO OFFER. SLIGHTY MIS-MARKED Three to Four Months old PULLETS, unrivalled layers, prices 12/6 and 15/- each.

Testimonial: "I am glad to say the 12 pullets sent last September have been excellent in every way. Please reserve 12 again this year. They are a Grand Strain, and each lot I have received for some years has given me the greatest pleasure."

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All Goods Carriage Paid England & Wales, except Devon & Cornwall.

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3in.	19	2/8	4/10	6/6	8/9	11/0	13/0
2in.	19	3/9	6/4	8/9	12/0	15/0	17/6
1⅝in.	19	4/4	7/10	11/0	14/10	18/6	22/3
1½in.	19	4/9	8/S	11/10	15/10	19/9	23/6
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10yds. x 1yd.	4/5	6/0	8/0	9/11 Roll.
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White Leghorn Pullets.

200 for immediate Sale

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8/3 each.

CARRIAGE PAID. 4 days' approval.

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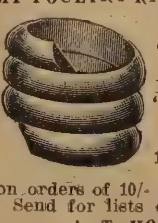

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Poultry Sizes, 3/6 per 100.

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10 per cent. Discount to S.P.B.A. Members. on orders of 10/- and up for Poultry Rings.

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Complete freedom from insect pests, and the disease germs that they carry, can be definitely assured by treating the woodwork inside and outside with exterior Solignum. The perches, and the sockets in which they rest, should be treated ***once a month*** *all during the Spring and Summer. Solignum in the wood and in the air is death to disease germs.*

SOLIGNUM

GET IT FROM YOUR LOCAL DEALER.

"Eastfield Pedigree" Poultry Farm
Braunston, nr. Rugby.

THIS FULLY-EQUIPPED AND MODEL POULTRY BREEDING ESTABLISHMENT

FOR SALE

TENDERS WANTED FOR STOCK AND HOUSING.

The Proprietor having, by Doctor's orders, to retire from business the whole of the above undertaking is to be sold with or without goodwill, as a going concern, or the stock and housing will be sold piece-meal.

The Stock includes every age of R.I.R., Light Sussex and White and Brown Leghorns down to 2 months old, including Mr. Alderson Smith's strain of **RHODE ISLAND BLACKS**, which he has been building up and is now nearly fixed.

All enquiries to be addressed to:—

Mr. C. E. HOSE,
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VISITS OF INSPECTION MAY BE ARRANGED WITH MISS ALDERSON SMITH AT THE FARM.

Great Reduction in PITTAM'S Original 'Special Lime Stone Grit'

THE BEST, FIRST, LAST AND ALWAYS.

Takes the place of "ALL" others. Oyster Shell and Flint not needed.

Acknowledged by all who use it, to give better results at greatly reduced cost.

3/- per Cwt. 55/- per Ton. F.O.R. GARSTON, LIVERPOOL.

Write for Free Samples. From dealers or direct from the manufacturers and suppliers—

E. A. PITTAM, M.S.P.B.A., etc.,
OFFICE AND WORKS,
DOCK ROAD, GARSTON, LIVERPOOL.

10 per cent. Discount to S.P.B.A. and N.P.U. Members on all orders placed through the Societies.

NONE GENUINE WITHOUT THIS TRADE MARK.

RHODE ISLAND REDS.

Many of our Breeding Pens are now for Disposal. As these hens have a high reputation, this is a good time to purchase foundation stock.

MAURICE S. McKAY,
MARCHWOOD, SOUTHAMPTON.

WHITE WYANDOTTES.

My Pen 71 is First in their Section and First over all breeds, Championship Pens included, at the Harper-Adams' Laying Trials, 1925-26.

Dr. A. Everson Harrisson, THE DANETRE PEDIGREE UTILITY POULTRY FARM, DAVENTRY.

Pen 80 gained 1st Class Certificate Harper-Adams, 1924-25.

Manageress: Miss C. M. SPEARING.

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(Newman's Formula, Layers)

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Bags Free. Cash with Order. Carriage forward.

Chick Mash, Growers' Mash, Breeders' Mash, No. 1 Chick Feed, No. 2 Chick Feed, Fish Meal, Alfalfa Meal, S.G. Oats, Dried Separated Milk, etc.

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J. M. DAFFARN & SONS, Ltd
M.S.P.B.A.,
Poultry Food Specialists,
THE CROFT, ERDINGTON.

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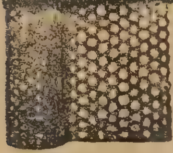
McNEILL'S ACE

For Light Roofs
12 yds. x 1 yd. 5/6 a roll
FROM ALL IRONMONGERS

WIRE NETTING



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Remarkably good quality, in fifty yard rolls. England's lowest prices per roll. Instant Despatch. Make certain your netting is carriage paid, or you will be astonished at the rail charges.

Mesh.	Gauge	wide. 1 ft.	wide. 2 ft.	wide. 3 ft.	wide. 4 ft.	wide. 5 ft.	wide. 6 ft.
3 in.	19	2/7	4/9	6/6	8/7	10/8	12/10
2 in.	19	3/8	6/6	9/0	11/10	14/10	17/9
1 in.	20	5/10	10/9	15/4	20/3	25/6	31/2

Special Offer.—All Orders, large or small, Carriage Paid for only 1/6 extra. Cash with Order.

F. & H. SUTCLIFFE, 24, Wood Top, Hebden Bridge, YORKS.
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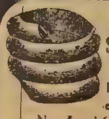

SPIRAL
10 colours
Extra stout
easily fixed
Nos. 5 and 6—1/- 25; 1/6 50; 3/- 100; 6/6 250; 12/6 500

FLAT BANDS
10 colours and stripes

Best quality celluloid.
Nos 4 to 6—1/3 25; 2/3 50; 4/- 100; 9/6 250; 18/6 500

ALUMINIUM
For Light or

LOCK FAST
Heavy Breeds

Stamped embossed figures, consecutively numbered
1/- 25; 1/9 50; 3/3 100; 7/6 250; 14/3 500
With year 4d. 100 extra. Twinlock same price
All rings post free. Trade supplied

E.D.G. APPLIANCE CO., LTD.,
The Premier House for Poultry Rings.
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LEG BANDS

Dried Milk.

See "Eggs," dated 9-6-26, for Prices of Separated Milk and Dried Buttermilk.

Full particulars on application.

Unextracted Dried Yeast Powder.

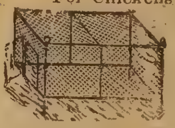
23/- per cwt.; **12/6** per 56 lbs.
F.O.R. Greenock.

Everything in Appliances and Feeding Stuffs. Price List Free.

Macfarlan, Shearer & Co.,
Dept. "A," GREENOCK.

WHITE LEGHORN PULLETS,
From trap-nested stock, ready July 1st onwards. The
MISSES RANSFORD'S STRAIN.
Three months, 8s. 6d.; four months, 9s. 6d.; five months, 10s. 6d.
MORGAN & SWAIN,
Gilmor Poultry Farm, Higher Heath, Whitchurch, Salop.

WICKS' FAMOUS COLLAPSIBLE RUNS
For Chickens Rabbits, Ducks, etc.,



Rat, cat, and sparrow proof 3ft. by 2ft. by 1ft., 5/6; 6 30/-. 6ft. by 2ft. by 1ft., 10/6; 6ft. by 2ft. by 2ft., 15/-; 6ft. by 3ft. by 2ft., 17/6. Carr paid. The Runs, 2ft. high have a door in end.
LISTS FREE,

WICKS BROS., Norwich.

PRICES REDUCED.

The Patent
'POCOCK' & 'CUSHION'
Felt-Lined
Egg Boxes

Write for LIST "J."

WE PAY FOR EGGS BROKEN
in these boxes for 12 months after purchase.

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Complete
Roof Felted
Creosoted
4x3x3 22/-
5x3x4 30/-
6x4x4 33/-

22/-
Carr. Paid

Large New List Now Ready Free.
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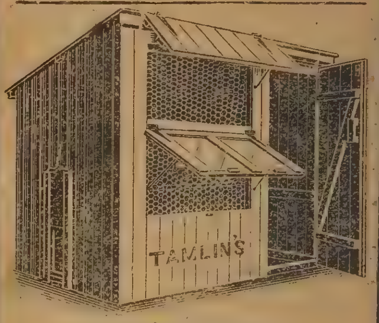
TAMLIN'S Poultry Houses

These Houses are right up to date, and made of the best deal obtainable throughout with good workmanship, including bolts and nuts, so that they are easily put together when you receive them. Last, but not least, will stand the weather; not curl up like brown paper after a shower of rain.



"THE CRANFORD."
No. 1.—6ft. long, 4ft. wide, 5ft. high, £4 9 6.
No. 2.—8ft. long, 5ft. wide, 5ft. high, £6 2 6.

GARAGE, POULTRY & TOOL SHED. Can be used as a workshop, cycle, tool and potting shed, dark-room, etc. Can also be made with Double Doors in one end, so making them suitable for motors.

No.	Size	Height	Price	Floor extra
1	6 x 4 ft.	6½ ft.	£4 8 6	11/-
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3	9 x 6 ft.	7 ft.	8 17 0	30/-
4	12 x 8 ft.	9 ft.	12 5 0	60/-

Carriage paid England and Wales.

The "COLNBROOK" Duck House. Mounted on raised platform. 6ft. long, 3ft. 6in. wide, 4ft. high. Price, carriage paid England and Wales, £3 13 6.

Should you be in want of any Poultry Appliance, no matter what kind —Incubator, Poultry House or Coop —over 50 other designs in stock for immediate delivery. All particulars on application.

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STONEHOUSE POULTRY PRODUCTS
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BONE MEAL, MEAT & BONE MEAL, MEAT MEAL.
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The STUFF THAT MAKES HEROES

Give those Birds of yours a real chance in life! If you treat THEM right they'll treat YOU right, and a richer egg yield of first-grade eggs, a healthier flock, and and perfect breeding stock will be your reward. Science is unanimous on one point—the birds MUST have their quota of protein foods and phosphates; Blood, bone, flesh, muscle and feather are all dependent upon a proper ratio of these ingredients. The growth of chicks into sturdy maturity, the best egg yield and breeding abilities of the adult birds, and the healthiest, firmest flesh condition of table birds, are all conditions which demand right feeding.

GET TO IT, SIR! Start right away using the best of the lot—

STONEHOUSE

MARROW BONE MEALS.

There is no better means of imparting to your flock real, healthy vitality and vigour; a regular addition of this remarkable body-building Marrow Bone Meal will raise the whole standard of your birds, and will ensure that your pullets develop into strong, healthy birds, free from leg weakness and prolific in their egg yield.

START RIGHT NOW USING THE GUARANTEED MEAT AND BONE MEALS;

you cannot get better, and notwithstanding their high quality they compare favourably with any other make

CARRIAGE PAID PRICES IN THE UNITED KINGDOM:—

BONE MEAL:			
Fine and Medium	**13/- per cwt.,**	**12/- per cwt. for half ton,**	**£11 10s. per ton.**
Coarse	**14/- „**	**13/- „ „**	**£12 10s. „**
MEAT AND BONE MEAL:			
Fine and Medium	**15/- per cwt.,**	**14/- per cwt. for half ton,**	**£13 10s. per ton.**
Coarse	**16/6 „**	**15/6 „ „**	**£15 0s. „**
MEAT MEAL:			
Fine	**19/- per cwt.,**	**18/- per cwt. for half ton,**	**£17 10s. per ton.**
MARROW BONE MEAL	**16/- „**	**15/- „ „**	**£14 10s. „**

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TRADE MARK

"Imperial" White Wyandotte Pullet, No. 2879.

STUDY this photograph of an "IMPERIAL" Pullet, No. 2879, 3 months' Winter Record of 69 2¼ oz. eggs, and judge if you are satisfied with your stock.

IF not, be wise and scrap your birds and start afresh with the "IMPERIAL" STRAIN OF WHITE WYANDOTTES AND BE AMONG THE LEADERS!!

LESLIE WILLIAMS——Liss, Hants.

BEST STOCK ALWAYS PAYS.

RIDDINGS POULTRY FARM,

BREEDS FOR QUALITY MORE THAN FOR QUANTITY.

No Poultry in the Country is reared under **better conditions** as regards **land position and housing,** and Stock is correspondingly **healthy and of Exceptional Laying Strain.**

NOW is the time for Buying COCKERELS.

WHITE LEGHORNS from winners and sisters of winners of two Silver Challenge Cups, Gold and Silver Medals.

BLACK LEGHORNS from winners of Silver and Bronze Medals.

WHITE WYANDOTTES from winners of Fourth Position Yorks Test. **Prices, Pedigree and all Particulars from**

Mrs. CLAY, M.B.E., F.N.U.P.S., S.P.B.A.,
RIDDINGS POULTRY FARM, LONG PRESTON, near LEEDS.

Galvanised WIRE NETTING.

Very Superior Quality. 50-yd. rolls.

Mesh.	1ft.	1½ft.	2ft.	2½ft.	3ft.	4ft.	5ft.	6ft.
3 in. ...	2/4	—	4/3	5/8	6/1	8/3	10/2	12/2
2 in. ...	3/4	4/10	6/-	7/5	8/3	11/2	14/-	16/11
1½in. ...	4/-	5/10	7/4	9/1	10/6	14/1	17/7	21/1
1 in. ...	5/5	8/-	10/2	12/9	14/7	19/8	24/6	29/7

3ft. x 1½in. x 19 gauge at 11/2 per 50yd. roll.

Specially low carriage paid prices given. Quantities Cheaper.

Wire Nails, 28lb. 3/3, 56lbs. 5/9, 112lbs. 10/9. Felt, No tarring, 15yd. rolls. Bitumen, 5/7, 6/8, 9/3; Sanded 3/11, 4/2, 4/11, 5/8, 7/- Creosote, Superior Quality, 1/1 per gall for 42 gall. lots.

E. B. HAWTHORN, Ltd., Dept. E.S., SHREWSBURY.

AN EXHIBITION UTILITY STRAIN
OF
LIGHT SUSSEX.
(I specialise in this breed only.)

Stock Birds & Breeding Pens always for sale

Day-old Chicks & Eggs in Season.

Mating List on application.

Inspection Invited

W. H. BRADY,
GLAN-Y-COED POULTRY FARM,
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SELECTED PEDIGREE

White Leghorn Stock Cockerels

SIRE:—

Son of the Misses Ransford's famous hen "Gloster Promise," 265 first grade eggs in 46 weeks at the FIVE COUNTIES LAYING TEST. GOLD MEDAL WINNER, Etc., Etc.

DAMS:—

Ten selected third season hens (Padmans) with guaranteed trapnest records (two years) of:—379, 384, 386, 386, 389, 396, 397, 405, 411, 427. All eggs 2¼ ozs. and over

Delivery from June onwards, at

£1 1s. Carriage paid on approval.

Capt. S. LEWIS LEWIS,
Sunbeam Poultry Farm,
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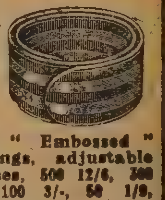
Immediate Vacancy for Pupil.

ALDERSON SMITH.
R.I.R. Light Sussex.
White and Brown Leghorns.
PEDIGREE BREEDING STOCK for UTILITY EXHIBITION.
Three Months Chicken a Speciality.
SEX-LINKED PULLETS.
BRAUNSTON, Near Rugby.

DOWELL'S POULTRY RINGS, sizes 5, 6, 7, etc. Celluloid Spirals, extra strong quality, in 12 brilliant colours. Prices, 500 12/6, 300 8/-, 150 4/6, 100 3/-, 50 1/9, 25 1/3. "Flat Bands" in 20 colours, i.e., 10 Plain and 10 Striped, 500 15/6, 300 9/6, 150 5/-, 100 3/6, 50 2/-, 25 1/3. All post paid.



Aluminium "Embossed" Numbered Rings, adjustable or not. Prices, 500 12/6, 300 8/-, 150 4/6, 100 3/-, 50 1/9, 25 1/-. With date also, 4d. per 100 extra.

Poultry Appliances and Utensils of every description. Rings, fountains, brooders, mash hoppers, guarded feeding troughs, bottle fountains, food cups, toe punches, egg-stamps, scrapers, egg-testers, thermometers, capsules, nest eggs, judging sticks, etc., at lowest prices.

Illustrated Lists of all Rings and Appliances free. Special to the Trade. Factors, etc., send for samples, etc. Big discounts.

"THE OLD FIRM," F. W. DOWELL, Mansfield Road, ASTON, BIRMINGHAM.

'HEBDITCH'

OFFERS

1,000

OF THESE SPLENDID 'FEARNOUGHTS'

FOR IMMEDIATE DESPATCH

The "EXCELSIOR."

grand House for semi-intensive work or r use in the breeding pen. Is one of the ry best Houses obtainable. It is made of ı tongued and grooved best Red Deal Boards.

ɔ. 1 is 9ft: long, 5ft. wide, 5ft. 6in. high. It has two glass windows.

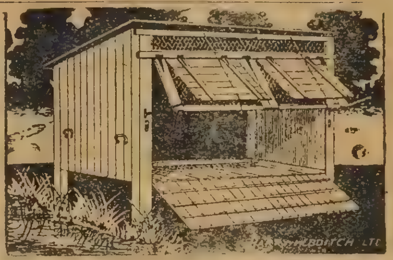
o. 2 is 12ft. long, 6ft. wide, 5ft. 8in. high. It has three glass windows.

PRICE.—No. 1, **£7 8 0**
Floor, 26/6 extra.

PRICE.—No. 2, **£9 15 6**
Floor, 39/- extra.

The "ATHELNEY." Duck House.

New design.

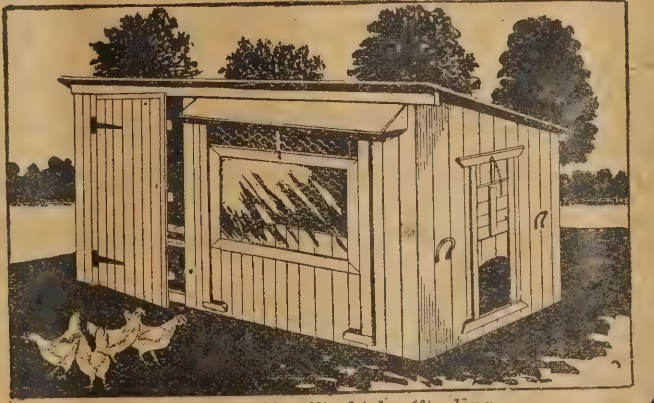


Made of ⅝in. Red Deal Boards.
6ft. long, 4ft. wide, 4ft. high from floor.
Raised nine inches from ground.

PRICE: **£4**

The Best Duck House on the Market.

The "FEARNOUGHT" POULTRY HOUSE



Size—4ft. wide, 4ft. high, 6ft. long.

PRICE— **£2 11 6**

Three for £7 10s. 0d. Six for £14 15s. 6d. Twelve for £29 6s. 0d. Floors, 13/- each extra.

Carriage Paid in England and Wales.

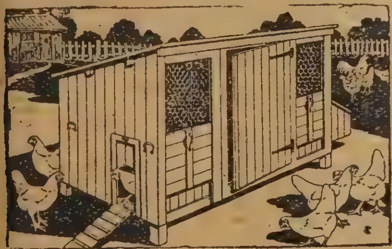
ſhe "**FEARNOUGHT**" is nade of best three-quarter ɔlaned, V - jointed, tongued and grooved Red Deal Boards. Good press-lock and key. Two substantial perches, hen exit, cleats round attendant's door, four strong handles for lifting. Made in sections and sent out with screws for erecting. It has a glass shutter.

The "FEARNOUGHT" IS ONE OF THE MOST USEFUL POULTRY HOUSES EVER OFFERED.

The "DERWENT."

ɪn attractive Poultry House, raised 1ft. rom the ground. It is built of best ⅝in. ongued and grooved and V-jointed Red Deal Boards and provided with two strong erches, nest boxes, and everything neces-ary for erecting.

No extra charge for floor.



ize—6ft. long, 4ft. wide, 5ft. high from ground.

PRICE— £3 19 0 If without nests, £3 7 6.
Carriage paid in England and Wales.
f pickled with Preserolium the cost is 1/- in the £ extra.

The "LAURETTA."

An excellent Semi-Intensive House, raised 1ft. from the ground. Made of best ⅝in. planed, V-jointed, tongued and grooved Red Deal Boards, and provided with strongly hinged door, fitted with good press-lock and key, strong hinges, 1in. wire netting front and strong perches. A partition divides the two compartments. No extra charge for floor.

Size—12ft. long, 4ft. high from floor, 4ft. wide
PRICE—£6 17 6. If without nests, £6 5 0
Carriage paid in England and Wales.
Prompt despatch. If immersed in Preserolium (pickled), the cost is 1/- in £ extra.

It will be to your interest to get Hebditch's Free Catalogue before you decide to buy any kind of Poultry Appliance. It is beautifully illustrated, and will give you an idea of Hebditch's ability to fit you up both economically and on the most modern scientific lines.

HARRY HEBDITCH, Ltd.,

Desk J,

Martock, Somerset.

Tell all the world—

The reports from satisfied users of the "HAPPY-THOUGHT" Brooder are such that the above headline expresses what appears to be a duty,, viz., to make known throughout Poultrydom the many advantages of the

"HAPPY-THOUGHT" BROODER.

MAJOR HADEN, of Netherby Hall, Sedgley, one of the most careful men in the Industry, judging by the quality of his stock, installed last season my complete outfit (Brooder and House). He writes as follows:—

In March, '26:—"I like the House, and the fitting has been well done. The Brooder is quite satisfactory; in fact, I am very pleased with it but will write later when I have had experience of its rearing capabilities."

In May, '26:—"Everything is quite satisfactory. You can refer any prospective purchaser to me. I am sure our business has been of a very pleasant character."

CHICKS—IF PROPERLY HATCHED—CAN BE REARED.

WHY STIFLE, STUNT OR DESTROY THEM?

The "HAPPY-THOUGHT" can be seen at the ROYAL SHOW, READING, STAND 159.

MARTIN HARVEY, Temporary Address (Show Week)—
295, Oxford Road, READING.

How has the Recent Strike Affected YOU?

In many cases arrangements have of necessity been altered, and in consequence extra housing accommodation is required. If this applies in your case we can supply houses and equipment quickly at competitive prices. Our lists (post free on request) contain fullest particulars. Personal attention always, nothing too much trouble. The proprietor will be pleased to call personally and advise you without obligation. Distance no object. Our specialities are:—

Draught-Proof Lined & Matchboarded Laying Houses
of Half-Monitor and Modified Hanson Types.

Weather-Proof Lined & Matchboarded Chicken Coops.

Labour-Saving Automatic Drinking Founts.

Tenders to your own Specification if desired.

W. A. MOTLEY, Amport, Andover, Hants.

PHILIP CHURCH

& SONS,

Corn and Seed Merchants.

SOLE MANUFACTURERS.

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POULTRY FOODS

Registered Trade Mark.

Best Quality Foods at Lowest Prices.

	Per Cwt.
Dry Chick Food	**21/6**
Dry Chick Mash	**17/6**
No. 2 Grow-on Chick Food	**18/6**
Dry Mash for Eggs ...	**15/6**
Tom Newman's Ditto.	**15/6**
Ditto Breeders' Mash	**16/6**

"ALFALFA" MEAL, "CLOFALFA" MEAL.

Extracted Soya Bean Meal, Dried Skim Milk.

OATMEALS, GROATS, FISH MEAL, MEAT MEAL, BLOOD MEAL, MEAT & BONE MEAL, BONE FEEDING MEAL, DRIED YEAST, GROUND LOCUST MEAL, SUSSEX G. OATS, FLAKED OATS, FLAKED MAIZE, KIBBLED MAIZE, MAIZE GERM MEAL, MAIZE GLUTEN, BISCUIT MEALS, DARI, RICE, MIDDLINGS, BROAD BRAN, SHELL, CHARCOAL (Graded), GRIT, LIMESTONE GRIT, etc., etc.

All Goods Carriage Paid.
Scotland and Wales 2/- cwt. extra.

SWAN AND ANCHOR WHARVES,
BISHOP'S STORTFORD.
'Phone 130.

DON'T BUY
TIMBER
ANYWHERE

Carriage Paid.

Until you have seen my New Price List.
YOU WILL SAVE MONEY.

TIMBER, ALL KINDS, GREENHOUSE STUFF,
PAINT :: PUTTY :: GLASS :: IRON, Etc.

FLEETWOOD JONES, S.P.B.A.,
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NEW CROSS 1030.

The largest Mail Order Timber Depot in U.K.

Tarred Roofs soon wear out

They don't last like Pluvex, the best roofing for all your small buildings. Pluvex is clean to handle and a pleasure to lay and for years it keeps on keeping out the weather. It does not need tarring or painting. In rolls of 12 sq. yards from your Hardware or Builders' Merchant at 5/9 per roll.
Heavy Grade, 8/-

PLUVEX *ROOF FELT*

FREE.—*Samples and booklet on request.*

The RUBEROID Co. Ltd. Sole Manufacturers,
71 Lincoln House, High Holborn, London, W.C.1.

Miss COLLCUTT, Partner for many years of the late

DR. J. H. BALDWIN.

The whole of the valuable stock which has made this Farm so famous has been retained, and the breeding will be continued on the same lines, with the usual strict selection as formerly.

White Leghorns. White Wyandottes.
Rhode Island Reds (S.C.)

Trap-nested all the year.

Bred entirely from TESTED PARENTS.

1926 List of Cockerels from individually recorded hens on application

SPRINGFIELD POULTRY FARM, WIMBORNE.
Telephone: WIMBORNE 23. Telegraph: "COLLCUTT, WIMBORNE."

YOUNG STOCK, 1926.

W. Leghorns.
R. I. Reds.
W. Wyandottes.

PULLETS from three months old. Prices from 9s. each.
COCKERELS Booked delivery commencing June. Prices based on Autumn Quotations less 50% June. 25% July and August delivery.

Special Discounts to Commercial Egg Farmers requiring quantities of Breeding Males

THE · LONG · DISTANCE · LAYERS
Leslie Pattison
WESTON COYNEY HALL LONGTON STAFFS

SONIMOR (WHITE LEGHORN) POULTRY FARM LTD.
LECKHAMPSTEAD, NEWBURY, BERKS.

THE LARGEST ONE BREED FARM ON EARTH OR AS FAR AS WE KNOW ANYWHERE ELSE

OUR POPULAR PRICE LIST AND OTHER PARTICULARS COST NOTHING

Did the General Strike last month upset all your nicely laid plans by preventing you from receiving those D. O. C. you had ordered, and thus depriving you of your estimated number of 1926 Pullets? If you have had this experience, we think we can help you, as we have a very large number of 1926, 1925 and some 1924 Pullets to dispose of. We have also some very choice 1926 and 1925 (unrelated to the above) Cockerels for sale. It will pay you to write to us for our Price Lists and other literature. DO SO NOW.

EGG BOXES, Cheap, but good. All English made. Extra strong box, fitted with best Leatherboard sections and pads. Answers the same purpose as more expensive ones. Delivers the eggs safely. 7/- each.

Strong wire - bound Crate, fitted complete with sections and flats, 3/- each.

Special Quotations for quantities.

Egg Sections: Leatherboard, 36's, 3/6 doz. Woodpulp, 36's, 2/3 doz.; Chipboard, 36's, 2/- doz.

All sizes supplied.

ENFRUTE, 32, Hosier St., Reading, Berks.

Rapid Limewashing The "Four Oaks" Ladderless Way.

See our Stand No. 48
Royal Show, Reading,
July 6th to 10th.

Sixty Highest Awards. Write for List 30
FOUR OAKS SPRAYER CO.,
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White Leghorns Only.

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All with Guaranteed Records of over 200 Eggs.

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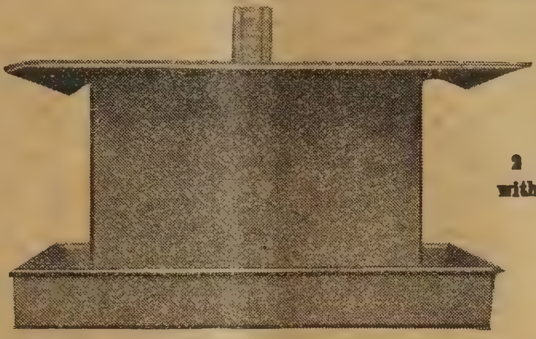
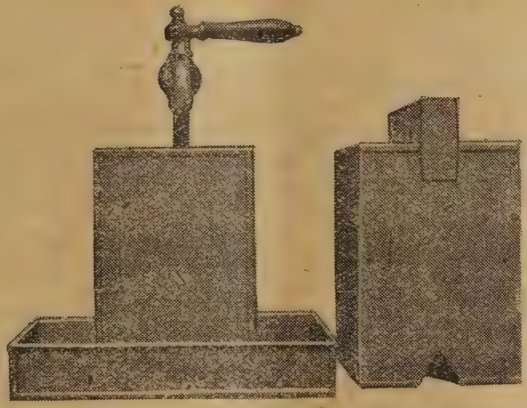


2 Gallon with Cover.



1 Gallon without Cover, showing method of filling.

Top View—2 gal. size with Sanitary Cover. Bottom View—1 gal. size, showing method of top filling.

The latest idea whereby the fowls can DRINK FROM THREE SIDES.

They can be FILLED FROM THE TOP, so that there is no turning over, thus causing no splashing. It can be used for STANDING or HANGING.

The drinking space round the Gallon size is 22in. and the 2 Gallon has 33in.

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Prices: 1 Gall. 4/6 each. Sanitary Cover 1/0
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BUFF ORPINGTONS, LIGHT and RED SUSSEX, and WHITE RUNNER DUCKS.

Buffs at Harper-Adams' Trial unbeaten 3 consecutive years by any other Orpingtons Sussex records include 316, 301, 285, 273 per bird.

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COCKERELS FROM TRAPNESTED HENS.

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Black Leghorns, White Leghorns, White Wyandottes. Breedin Pens: £4 4s. up. Laying Hens, 7/6 and 8/-; £18 and £14 10s., 50.

Pullets, 6/- to 10/-. Also later hatch Chicks can replace Day-Olds.

Day-Olds, 10/- doz.; 80/-, 100. Still booking. Irish Customer: "Chicks arrived safe, only one dead."

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Gold and Bronze Medals, Silver Challenge Cups, Cash Prize, and many Certificates won with B. Leghorns recently. 1st Harper-Adams' present Test.

Official Records to 260 eggs.

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White Wyandottes and White Leghorns

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Moderate prices.

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Pupils taken in Cottage Hostel for one year or shorter courses.

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MARKET DRAYTON, SALOP.

BUFF ROCKS,
WHITE WYANDOTTES,
RHODE I. REDS.

Winner of Gold, Silver and Bronze Medals in Open Laying Competitions.

SEX-LINKED CROSS

BUFF ROCK x WHITE WYANDOTTE.

This cross has proved the quality of the "EGGFLO" STRAINS, by leading

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They prove it in open competition as pure breeds; they retain it when 'crossed.'

BARNEVELDERS.

Special reduced prices: 1925 hatched pullets 18s. instead of 30s. each, bred from Harper-Adam Medal Pen and my double laced winners of over 100 prizes, cups, and specials in both utility and exhibition.

Great opportunity to secure genuine Barnevelders. Orders booked for Cockerels in the Autumn.

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National Laying Test.—Leading Exchequer pen throughout year 1924/5, finishing 6th in Section.

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Exchequer Cockerel.—1st & Special Yeovil, 1st Warrington, 2nd Bristol.

Trap-nested Utility Stock.

MATING LIST EARLY JANUARY.

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Stock Cockerels, individually bred from carefully selected high-record layers of large eggs.

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Finest Pedigree RHODE ISLAND REDS, LIGHT SUSSEX, WHITE LEGHORNS.

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Individually-hatched Cockerels, Breeding Hens, Pullets.

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Breeder of the Highest Class Pedigree Utility Poultry.

"Heaselands," BARHAM. CANTERBURY.
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White Leghorns. Light Sussex.
White Wyandottes. Black Mendels.
Rhode Island Reds. Black Leghorns

SOUTH HANTS POULTRY FARM.
ROMSEY.

R. I. Reds.
W. Wyandottes.
W. Leghorns.

Gold and Silver Medals and Certificates at Harper-Adams' Laying Trials.

S.P.B.A. WINTER AVERAGES 50-60.
12 MONTHS' FLOCK AVERAGES 200.
BREEDING STOCK FOR SALE.

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WHITE WYANDOTTES and WHITE LEGHORNS.

Eggs for hatching in both breeds, 7/6 per 15, 50/- per 100, carriage paid. 90 per cent. guaranteed fertile.

Chinchilla Rabbits. **R.A.Maddock** Blue Beveren Rabbits.

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Flat-Coated Retrievers. Trapnested Poultry.

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Pedigree Utility Poultry

Black Leghorns, White Wyandottes, Rhode Island Reds, Light Sussex, White Leghorns, Black Mendels.

Each generation has a first-class record.

The "Heaselands" strain has taken many years to build up to its present perfection; but, almost from the very beginning, the trap-nest records have been notable. With a long line of successors behind it each bird can be relied upon to give complete satisfaction.

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"The World's Best Value"

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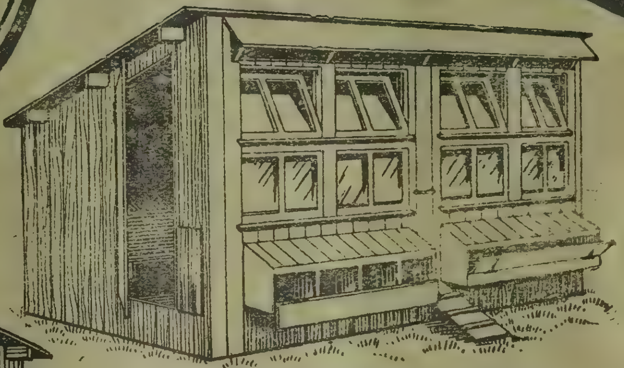
We are pleased to supply any of our goods on deferred payments to suit our customers' requirements. These terms are financed entirely by us. In this way the customer deals direct with Walton's throughout. Terms are 25 per cent. cash with order and 12 equal monthly payments. 5 per cent. only is the extra charge for this accommodation.



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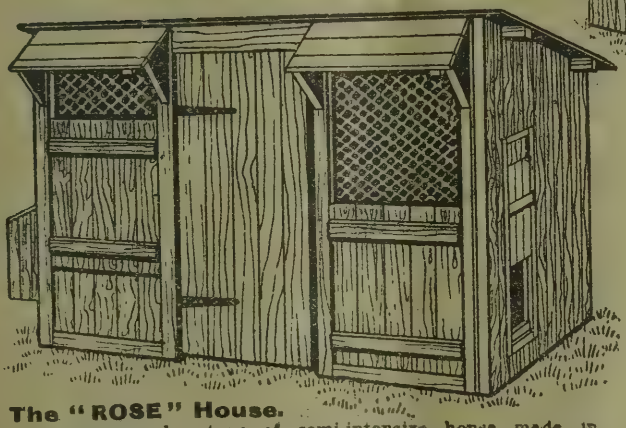

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Two up-and-down shutters are fitted complete with chains. Door is on Tee hinges and fitted with lock. Supplied complete in every detail, including perch, bolts and nuts.
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Carriage Paid in England and Wales.

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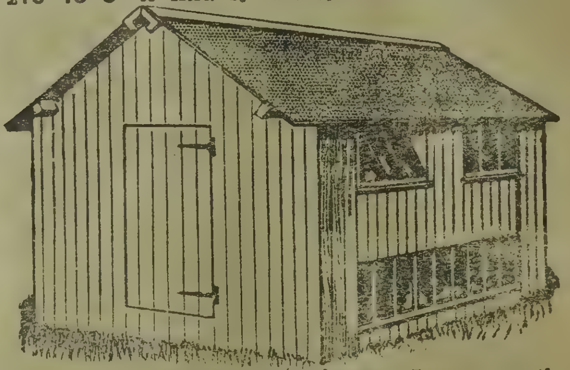

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Lighting arrangements are good and effective.
Top lights fall inwards into hoppers and are rainproof.
Patent opening and closing Ridge Ventilator, with cords. Can be operated from outside of house.
All glass used is ¼-inch wired plate.
Outside nests along one side.
Complete with dropping-board and perches.

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	Each.	Six.	Twelve.
10-Doz. size	8/3	7/9	7/6
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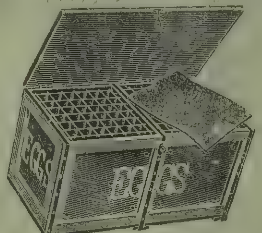
STRONG PADLOCKS (2 keys), 9d. each. 8/- doz. Post free.



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Kibbled Maize (Screened)	10/0	10/3	10/6
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(Wheat, Oats and Kibbled Maize.)			
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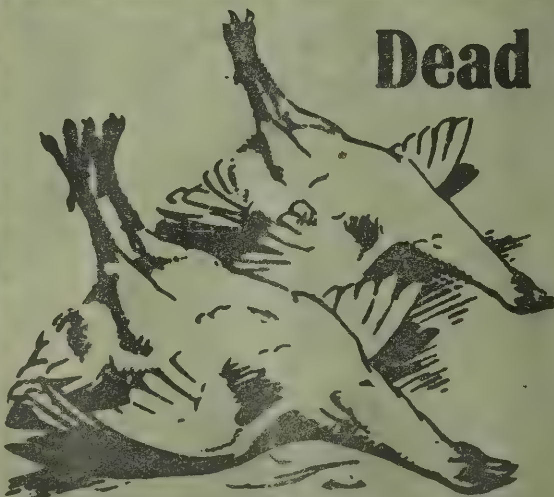

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